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UNIVERSITY OF TORONTO STUDIES

PSYCHOLOGICAL SERIES

VOL. IV. STUDIES IN INDUSTRIAL PSYCHOLOGY: No. 1. A POINT OF VIEW, BY E. A. BOTT; No. 2. JUVENILE EMPLOYMENT IN RELATION TO PUBLIC SCHOOLS AND INDUSTRIES IN TORONTO, BY E. A. BOTT

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STUDIES IN INDUSTRIAL PSYCHOLOGY

I. A POINT OF VIEW

BY

E. A. BOTT, B.A.

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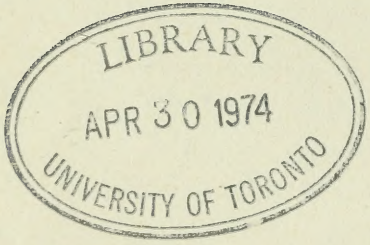

STUDIES IN INDUSTRIAL PYSCHOLOGY

I. A POINT OF VIEW

The growth of the Social Sciences has from time to time been marked by important changes in conceptions regarding human relationships. These changes regularly produced effects of practical significance upon the institutions of the day but time usually revealed in them an element of untruth which required that they be supplemented or supplanted. The theory that "all men are born free and equal", for instance, had unquestionable influence in promoting democratic principles but the further attempt to picture society in terms of the "average man" strained this view to the breaking point; the latter was an unreality which did not exist. Similarly the view that man is a rational being stimulated enquiry regarding the principles of proof and argument but the formula was inadequate to explain the patent irrationality which marks so much of human conduct.

During the past few decades two new conceptions have been developed which have largely revolutionized our approach to problems involving the human factor. The first is the scientific study of Individual Differences. This does not mean merely the recognition of broad racial distinctions or of types of abnormality but rather the fact that in any community of normal persons there is to be found a great variety of abilities and of degrees of intellectual power. From the scientific point of view the task here has been to devise precise methods of measuring these differences of native ability and of determining their constancy or variability in the individual. Already sufficient advance has been made along these lines to warrant the belief that such measurements have practical value both in pedagogy and in industry, being one means of conserving our mental assets.

The second conception is a fuller appreciation than heretofore of the role played by elemental or instinctive responses in human behaviour. Whatever satisfaction one may find in explaining his own conduct to the last detail on logical grounds, the fact remains that certain basic instinctive tendencies constitute the bed-rock of our lives. On them the structure of mental habits and conscious motives is reared in the child and in the adult. Here again individual differences are significant but in addition we must reckon with the collective reactions, defensive or aggressive, which spring from men's gregarious inclinations. Like an explosive in a gun these forces in the individual, properly used, may serve him; misused or disregarded they may destroy him. In our handling of people we can no longer plead that we did not know the gun was loaded. Whether in the home, in school or at work, situations which persistently run counter to these native tendencies necessarily prevent a proper adjustment and in some measure frustrate success. The key-note in motivation, therefore, is the conception of a continuous growth process working within the individual so that in each situation there is a factor urging him forward toward more satisfying things. When this continuity of outlook is lost a crisis results, marked by the attitude of indifference, dissatisfaction or neglect of his task.

The first application of these views to "personnel" work in industry naturally took the form of recognizing different aptitudes in employees for different types of work and consequently an attempt to fit the right man to the right job. In so far as this is possible it is an important step in advance from the view that labour is merely a commodity to be purchased. A weakness of this "right man" theory, however, lies in its purely objective character. It regards jobs as one thing and men as another, the problem being to fit them together like pieces in a jig-saw puzzle. A man is tried in one place and if he doesn't fit is rejected or transferred elsewhere till he is found to fit. In this the principle of selecting men

is recognized but the fact that the worker himself is essentially a functioning unit is overlooked.

The more recent view of personnel work is strictly biological in character. The elemental unit is considered to be the worker-in-his-work.[1] This is regarded as a simple organic unity which if broken is virtually destroyed. From this standpoint placement is only one feature of the work-process and not the initial one. The conception is as extensive as the life of the individual. The worker-in-his-work characterizes the child discharging his duties and responsibilities in the family circle quite as much as it does his career through school or later in industry. What counts is the continuity of process and development as enacted by the worker himself. The work-process is viewed longitudinally rather than in cross-section and from this standpoint discontinuity in any form, as through the exigencies of our educational or industrial system, is a serious matter.

For Mental Hygiene the point of view as outlined means first and foremost an intensive study of the individual. Moreover the study should contribute to a practical purpose—the data which are sought are not to be a biography of the person's past so much as a guide to his future. This would mean in the first place noting individual differences and tendencies in mental power, in character and physical health. Secondly, proper motives should be sought and applied to help the individual to realize with conviction that his future opportunities depend upon his present efforts. Thirdly, every means must be used to have the individual's environment at every stage such as will permit and stimulate his continuous growth. When for instance we invent on his behalf a circumscribed environment such as the school, in order to accelerate one side of his development, we must assume the responsibility of seeing that our selection does not become for him a disconcerting isolation. In our Canadian rural life where the boy or girl grows up from early years in the midst of those agricultural

[1]W. D. Scott, *Changes in some of our Conceptions and Practices of Personnel*, Psychological Review, March 1920.

duties which are to be his adult interest such a break is happily avoided. In our industrial centres, however, the gap which at present exists for a large percentage of children between school and work is a serious handicap and an industrial loss. The relation of education to juvenile employment,[1] therefore, is an important question which should command the co-operation and support of employers, educators and parents to the end that home, school and work may be progressive stages of an organic growth in the individual.

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[1]At a meeting of the National Committee for Mental Hygiene in June, 1920, a sub-committee on Educational and Industrial Psychology was appointed from members of the Executive to enquire into problems in this field. A preliminary investigation, which is reported below, has been undertaken in Toronto at the request of this Committee.

STUDIES IN INDUSTRIAL PSYCHOLOGY

II. JUVENILE EMPLOYMENT IN RELATION TO PUBLIC SCHOOLS AND INDUSTRIES IN TORONTO

BY

E. A. BOTT, B.A.

II. JUVENILE EMPLOYMENT IN RELATION TO PUBLIC SCHOOLS AND INDUSTRIES IN TORONTO

GENERAL INTRODUCTION

The successful establishment of juveniles in their life work rests on three main pillars, the home, the school and industry. Through force of circumstances these three frequently lack co-ordination in their respective relations to children. At no point does the child feel himself vitally linked with all three. Thus his passage from school to work is generally a critical and difficult one to which those institutions whose best interests would be served by his safe establishment often seem indifferent, if not obstructive.

Locally we are confronted with this problem upon a large scale. As will be shown below, the number of children who graduate annually from Toronto public schools is not greater than the number who drop out from the various grades to work. The significance of this fact is not merely the number of children in the latter group but the motives and circumstances which contribute to this exodus from the schools. The early departure of these children, for instance, is usually preceded by a period of disintegration in their connection with school which is often abetted by home influences. The educational waste which this involves is a serious matter considered merely from the standpoint of school economy, but the handicap of wrong habits and attitudes which this and other circumstances of leaving tend to impose is on the whole probably more serious. Should any means be spared in the attempt to ascertain the facts of the situation in order to deal effectively with this less favoured portion of our elementary school population?

In industry where the children of today are the workers of tomorrow the convictions which are being rooted in their minds now as beginners will be the governing ideas of the

future. In the interests of stability, if industry is to be manned by efficient and satisfied workers, it must do its share toward removing difficulties which from the beginning tend to produce or aggravate the opposite result. So long as the entrance of juvenile workers into jobs remains as at present without direction, the outcome will likewise remain a matter of chance.

The home and the school are even more important as the early training ground of our workers. If a lively sense of responsibility, loyalty and fair-play is not established there, if the pre-industrial experience of the child fails to produce a conviction that success and reward depend ultimately upon service rendered, then the evil result will appear in industry to the cost moreover of those who are not directly responsible. The moulding of the child's attitude in matters of work and rewards is a continuous process operating consciously or unconsciously in the atmosphere of the home and the school, and is put to a crucial test on his entering productive industry.

The evidence at hand indicates that on the whole children who go to work respond to the immediate wage they can secure with little regard for their prospects or for their earning power in terms of the knowledge or skill they possess. Moreover it is apparent that within rather wide limits the earnings of children leaving public school at the present time are not dependent upon the grade or the age at which they leave and consequently the latter questions do not appeal to these children or their parents as reasons for continuing at school.

Under these circumstances what is required in juvenile employment is not one expedient here and another there, but a practical policy with scope broad enough to include and coordinate the influences which continuously mould and modify the work-attitude of children. The getting and keeping of a job is only one element of the many involved in employment; it is, however, a testing out of the mental habits and moral attitudes which constitute the individual and unless this foundation be sound the success of the work-experiment is in

danger. It is because the job-result is part and parcel of the worker himself that an employment policy must include more than technical training and placing of the child.

Our second thought is that the moulding of this work-attitude in a child is not a matter of formal instruction but a nurturing of forces that are within him. The child as a potential producer and creator, moved by the enthusiasms and interests which stir him from within, is the elemental material with which we work, and this material is particularly pliable in the adolescent period. If a happy end-result regarding human relations in productive industry is to be attained it is these instinctive elements in human nature that must be guided, stimulated and controlled through the pre-industrial and early industrial periods. This may be regarded as the backbone of juvenile employment policy.

This conception assumes (1) that the unit with which we deal is the individual child with all his potentialities, (2) that in practice this unit is the child in action, the child-at-his-work, which is one organic unity whether at home, in school or in industry,[1] (3) that the development of this unit requires careful nurture of the fundamental traits and instincts of the individual as well as proper training in academic and technical knowledge. The application of this policy requires that all institutions concerned with this development share the responsibility of adopting means which contribute to the ultimate result. This cannot be achieved without an intimate interlocking of functions between the home, school and industry, so that the child may progress toward his life work without serious interruptions at transition points and fully conscious throughout of his own opportunity and of the obligation to play his part.

The information upon which the above views are based is presented below. Owing to the lack of a local precedent in dealing with the question it was thought advisable at different points to dwell upon the method of procedure followed in obtaining the results, to an extent which would otherwise not be required.

[1]See Study No. 1, p. 5 *ante*

The Plan of Enquiry

The following enquiry by the National Committee is the beginning of an attempt to ascertain the facts of the situation in Toronto regarding the movement of children out of public schools into industry. The object was to find how best such information can be secured, to discover what are the most important phases of the question upon which further enquiry should be made, and to offer such constructive suggestions as the present situation might seem to demand and ultimately to prepare the way for a proper local policy in regard to juvenile employment.

An analysis of the published reports and certain unpublished information of the Board of Education was first undertaken to determine the extent and causes of children dropping out of school (elimination). For this purpose the school year September 1918 to June 1919 was selected in order that those children whose industrial record we wished to follow, might have had at least a year of working experience. The importance of the latter point was felt to outweigh the difficulty involved, owing to the lapse of a year's time or more, in securing personal impressions about these children from teachers who had known them in school. Of the 3000 or more children who dropped out and went to work in that period, a selection of 356 cases was then made as a sample of the larger group. It was hoped that an intensive investigation of a small group, if the latter were representative, would indicate the problems in the larger situation.

The 356 cases mentioned were surveyed as regards their school record, home situation and industrial history. This was done by a staff of trained social workers who were given every assistance by the teachers and principals of the twelve schools concerned and by the school nurses and nursing superintendents of the Department of Health. The school record (proficiency, attendance, etc.) was obtained directly from the school registers and was supplemented in most cases by confidential information and impressions from teachers. The home

situation, as contributory to the child's leaving school and getting work, was obtained by an interview with the parents and whenever possible with the child by himself. The help of the city nurses was invaluable in this connection, as they assumed full responsibility for reports upon the homes which they knew intimately. The home visiting was later supplemented by a questionnaire addressed directly to each of the children concerned. The industrial history was also obtained chiefly from the children and parents, the accuracy of these sources having been found sufficiently satisfactory in most particulars on being checked by separate interviews and in a few cases by the known wage scales and working conditions of certain firms. Some twenty-five employers representing various kinds of business in which juveniles are regularly employed were personally interviewed and their co-operation obtained in answering a questionnaire regarding their practice and problems in juvenile employment. The above field work on individual children was done between June 15 and August 31, which is not the most advantageous period as teachers are exceptionally busy before schools close in June, and through the summer parents, children and employers are frequently absent on vacation. It was not possible in the time to consult with the present and previous employers of these children upon important points regarding their industrial record (proficiency, reason for leaving, etc.). In some places where juveniles obtain work, employment records are not kept and satisfactory information of a year previous would therefore be difficult to obtain.

The results are reported[1] below by sections as follows:

[1]Acknowledgment is due for assistance from many sources in the preparation of the report. The study was proposed and the means for its prosecution provided by the Canadian National Committee for Mental Hygiene. The Chief Inspector provided every facility for consulting the records belonging to the Board of Education, and through the personal assistance of his central staff as well as of principals and teachers in the schools tracing individual school records was rendered possible. The Medical Officer of Health and his divisional directors and field staffs also gave invaluable assistance in planning and carrying out the earlier

1. The problem of Elimination in Toronto Public Schools.
2. The school record of a group of 356 cases.
3. The home factor.
4. The industrial record.
5. General conclusions and suggestions.

I. ELIMINATION IN TORONTO PUBLIC SCHOOLS

Eliminated pupils are those who so far as is known, have permanently left the Public School system. This would include, for instance, those who died, those who left the city even though they were enrolled later elsewhere, those who left to enter Separate or private schools in town, those who left on passing the Entrance examination,[1] those who were absent through protracted illness, some of whom might return later, etc. The gross figures of elimination, therefore, would be considerably in excess of the number of pupils with whom we are particularly concerned, namely those who leave school for work in Toronto. To determine the latter group an analysis of the total elimination into its component factors is required and this should be done with a clear understanding of the relation of total elimination to total enrolment. The latter is necessary if we desire to discover the causes of puzzling variations which appear in different groups of eliminated pupils.

For instance, in the case of pupils leaving town one might reasonably assume that the chances of a pupil being withdrawn for that reason from any one form as from any other were equal and that therefore the total number of pupils leaving town from each form would be proportional to the

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field work. The Trades and Labour Branch and the Division of Industrial Hygiene of the Board of Health, Ontario Department of Labour and Health, supplied useful reference material. The field work was carried through by Miss C. J. Walker, Mrs. W. H. Becker and Miss P. Anderson and part of the organization of the material was done by Miss M. Kirkpatrick and Miss E. M. Jamieson.

[1]A certificate issued on completion of the Senior IV grade, for entrance to a Continuation Class, a High School or a Collegiate Institute.

total enrolment in the respective forms. This is found to be approximately the case only in the Junior third form.[1] If we were interested in discovering the influences which determine migration to and from Toronto, as reflected in the school population, we should have to enquire why the proportion of pupils leaving town from the lower forms was about 4 per cent. higher and from the upper forms about 1 per cent. lower than the percentage distribution of enrolment in those forms. Similarly in the case of elimination to go to work, which is a more complex situation, certain causes will be operating from outside the school system, others may be operating from within as a consequence of certain exigencies in the public school organization, or again psychological differences between pupils or sexes or races may be important. At any rate it is our duty to note such peculiarities as exist in the distribution of the employment group and to discover if possible the causes which produce them.

For those parents or other rate-payers who have not had the opportunity of studying the organization of the public schools, or of examining the Annual Report of the Board of Education certain information regarding the progress of pupils through the system may be of interest. In the data below, from the returns for June 1918, the total enrolment is analysed graphically in different ways to indicate the possible bearing of certain points upon elimination, particularly as regards the employment group.

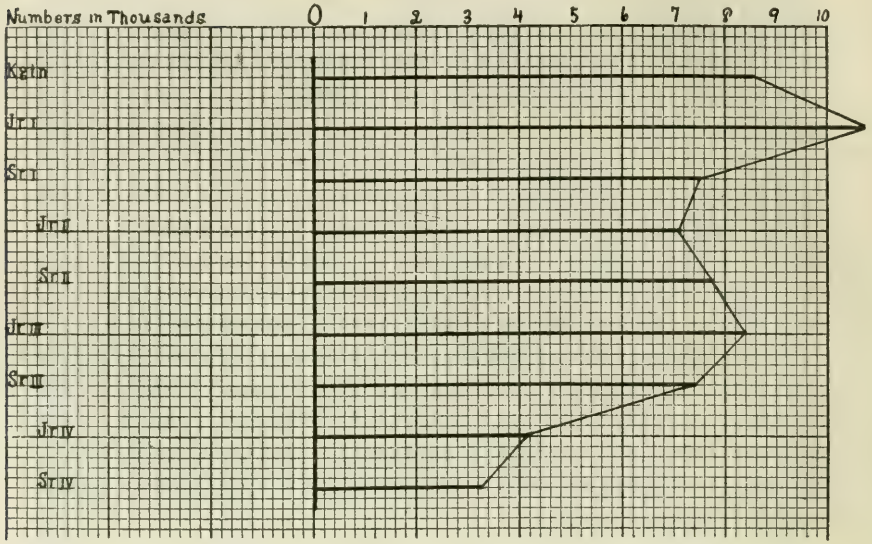
Graph I shows the distribution of 63520 pupils enrolled in the nine forms before promotion in June 1918. Two peaks are noted, a high one in the Junior I (10774) and a moderately high one commencing in the Senior II, most marked in the Junior III (8390) and falling away in the Senior III. Many beginners enter school for the first time in the Junior I, which

[1]The figures for 1918 are:

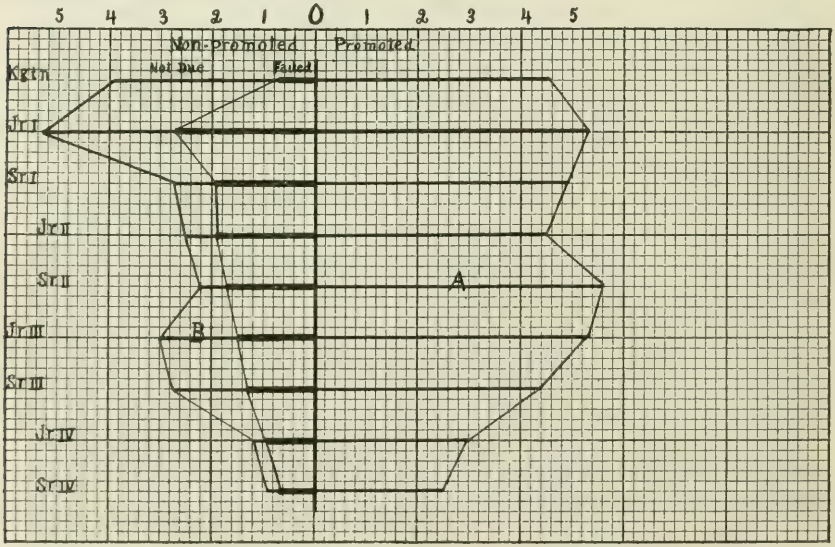
	Sr. IV.	Jr. IV.	Sr. III.	Jr. III.	II.	I
Percentage of total enrolment	5.2	6.5	10.	13.	23.3	38.3
Percentage of pupils who left town	4.0	5.7	9.2	12.8	27.2	42.7

GRAPH: I. Distribution of total enrolment of 63520 pupils by forms.

From table A, Annual Report, 1918, p. 76



GRAPH·II. Same enrolment as I, showing number promoted and not promoted, i.e. not due and failed.



largely explains the first peak. But what of the Junior III? Here there is no unusual influx from without and the cause should be sought within.

We next examine this distribution by forms from the standpoint of numbers promoted. Graph II (on the same scale as I) shows the same 63,520 pupils distributed according to forms. Those to the right of the middle line were promoted in June, those to the left were not. In the non-promoted group a distinction is drawn between those who were due for promotion but failed—shown by a thickened line—and the remainder who were not due for promotion and did not try.

Here it is noted first that the two peaks in enrolment by forms appear both on the promoted and non-promoted side, giving a fairly symmetrical shield-shaped graph with a pair of peaks on either side. In the case of the Third Form peak, which is our problem, two special features on the left side are to be noted, namely the peak on the left is one form later (lower on the graph) than it is on the right and the peak is limited to the outer section of the left side, the inner section (failures)[1] being a smooth line from the Junior I onward. The graph as a whole shows that this peak of enrolment in Form III is connected with the question of promotion; on the right it appears in the numbers promoted out of the Senior II and Junior III, and on the non-promoted side it concerns not the failures but only those not due to advance, i.e. those who have previously been promoted into the form under circumstances which do not leave them eligible for further promotion at the next regular time. The latter group is, of course, displaced one form forward on the left.

Altogether these facts shown by the graph suggest that in the three forms immediately following the Junior I a process is at work in the promotion of pupils which terminates in an

[1]As to the causes of these 13,510 cases of failures in promotion, disregarding all external and unavoidable causes, including irregularity in attendance, we find that slow mental development and inaptness in academic work are reported (1918 Report p. 75) as responsible for 6508 cases (48 per cent.). As the effect of such causes is cumulative in producing repeated failures they play an important part in employment elimination.

enlarged enrolment, i.e. a relative congestion in the Junior III form. In other words the relatively large promotion, for example, from Senior II to Junior III (marked A) together with the relatively large number already in the Junior III who are not yet eligible to try for promotion (marked B) indicates that the Junior III and to a less extent the Senior III are in some sense a dumping ground for the preceding forms. The fact that this coincides (as will be shown) with the first important employment elimination is significant, the more so because many pupils have at that point reached or are approaching the legal age of leaving and are therefore susceptible to any unusual pressure from within the system.

The three forms (Senior I, Junior II and Senior II) which seem to contribute to this result are exceptional in being considered by many principals as half-year forms.[1] Although there have been differences in practice on this point, promotion through these forms has on the whole been more flexible and at more frequent intervals than in other forms. In order to appraise the effect of this in the movement of pupils through the whole system we shall again examine the total enrolment by forms from the standpoint of the time spent in each form both by those who were promoted and those who were not. This will give three groups in each form, namely (1) those who have been in the form a shorter time (by a half-year, more or less) than usual, the accelerated group, (2) those who have been there the usual time, the normal progress group, and (3) those who have already been there one or more additional terms, the retarded or repeater group. The latter group, which is conspicuous in the over-age population in our schools, is particularly susceptible to elimination and always presents a serious problem in administration. If these pupils are detained in early forms in the interests of individual proficiency the greater part of their school life-time will be spent on too elementary work. On the contrary if they be promoted leniently on a basis of time-service rather than of merit they shortly reach a limit beyond which they can

[1] They are officially so regarded since 1919.

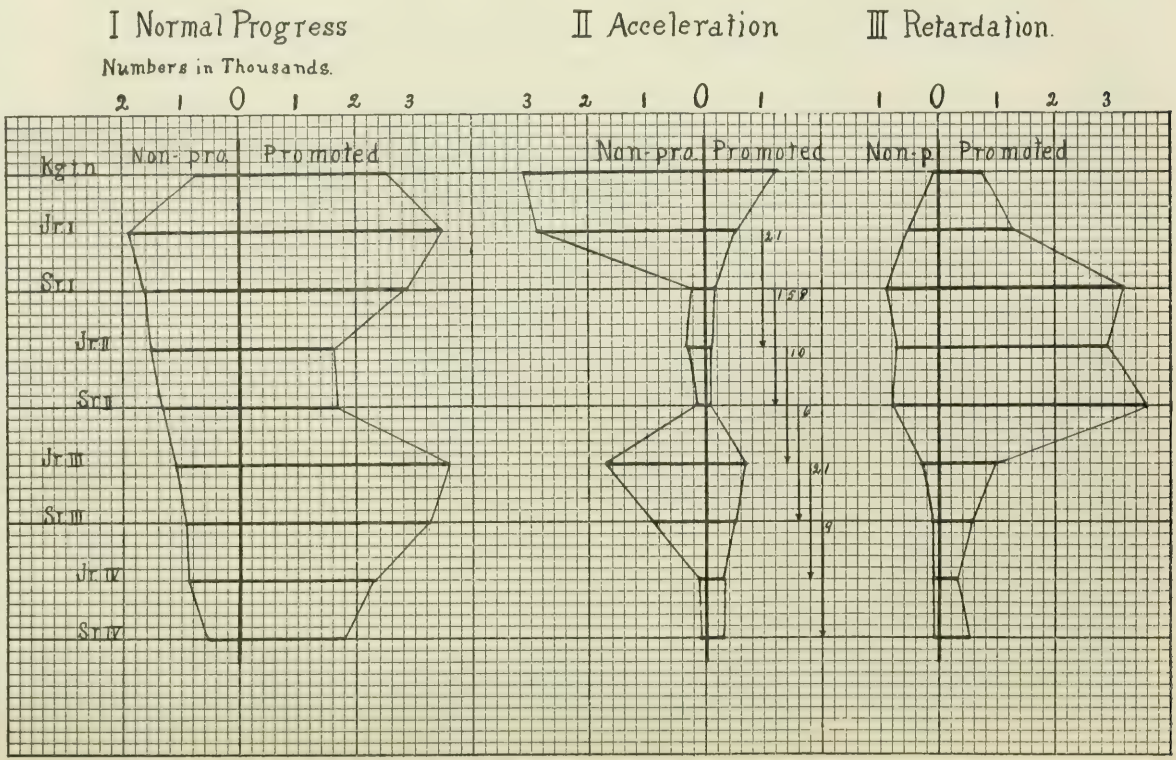
scarcely progress or be promoted owing to their lack of grounding. From the standpoint of these pupils the lenient policy is to be preferred, if for no other reason, because discouragement from repeated early failure would soon destroy all prospect of proficiency. Other points, of course, would have to be considered in weighing the merits of a particular policy regarding them, the economic burden, the effect on teaching efficiency as a whole, etc. Our interest here is merely the bearing of the actual policy upon elimination.

The distribution of these three groups in each form in June 1918 is shown separately in Graph III; (1) the normal progress group, (2) the accelerated group, and (3) the retarded group. In each case the graphs are drawn to right and left of a centre line as in Graph II, thus showing the promoted and non-promoted pupils of each group respectively. In (3) the various degrees of retardation are disregarded for simplicity; in actual practice these differences are of the utmost importance. The three figures are prepared on the basis of Senior I, Junior II and Senior II being half-year forms.

The similarity in shape between Graph III (1) and that part of Graph II which includes only promotion and direct failure is noticeable, indicating that the majority (62 per cent. plus) of those who are eligible to try for promotion have spent only one term in preparation, and of this group 68½ per cent. are successful. A difference between III (1) and Graph II, is seen in the deep depression between the peaks on the promotion side of the normal progress curve, showing the relatively small number who pass each half-year form within that time. On this point III (2) shows how very few do it in less time, and III (3) how many require longer, especially in the Senior II form. It was in connection with these retarded promotions that it was pointed out above that in avoiding the Scylla of early retardation we fall into the Charybdis of congestion in Form III.

Of Graph III (2), the accelerated group, the left hand or non-promotion part represents a body of children who are only pseudo-accelerated. They have not been in their respective

GRAPH: III. Proportion of *normal progress, acceleration and retardation among promoted and non-promoted children, by grades, 1918.* From data in Annual Report pp. 74 & 80



forms the normal time, on the other hand they are thought to be not yet sufficiently proficient to seek promotion. They may or may not be above average capacity; in fact they practically constitute the extreme left portion of Graph II (i.e. the entire group of those not eligible for promotion) as can be seen by the close similarity in distribution and in gross amount (85 per cent. of the whole). Their significance in the matter of elimination is that the very large proportion of these children who are accelerated but not eligible for promotion appears in the Junior III, and this indicates the degree of pressure in promotion from the half-year forms preceding. All that can be said of their prospects is that these children have arrived in the Junior III for better or for worse and that they have the opportunity of passing a year hence if they can.

The right hand part of Graph III (2) shows the genuinely accelerated children who have passed their forms in less than the regular time. They are not susceptible to elimination except for non-educational reasons; they are the children of superior mental capacity. If it is a national economy to develop mental ability where it exists, the path of this 6 per cent. of the total enrolment should be cleared, particularly they should be relieved of marking time at any point in the system where force of circumstances may compel a certain slowing down in the interests of the greater number. One means of accomplishing this is already in practice on a small scale, namely by allowing exceptional pupils to skip a form. The distribution of 225 cases of skipping reported for 1918 is shown to the right of III (2). Of these nearly 80 per cent. were cases of skipping half-year forms. This practice might well be extended as an educational experiment. If the best 5 per cent. of several forms, selected by a standardized objective procedure, which is now available, were allowed to skip an occasional grade on probation the result would not merely be to their advantage but could be made a stimulus throughout the whole system.

Graph III (3) indicates the pupils (26½ per cent. of the

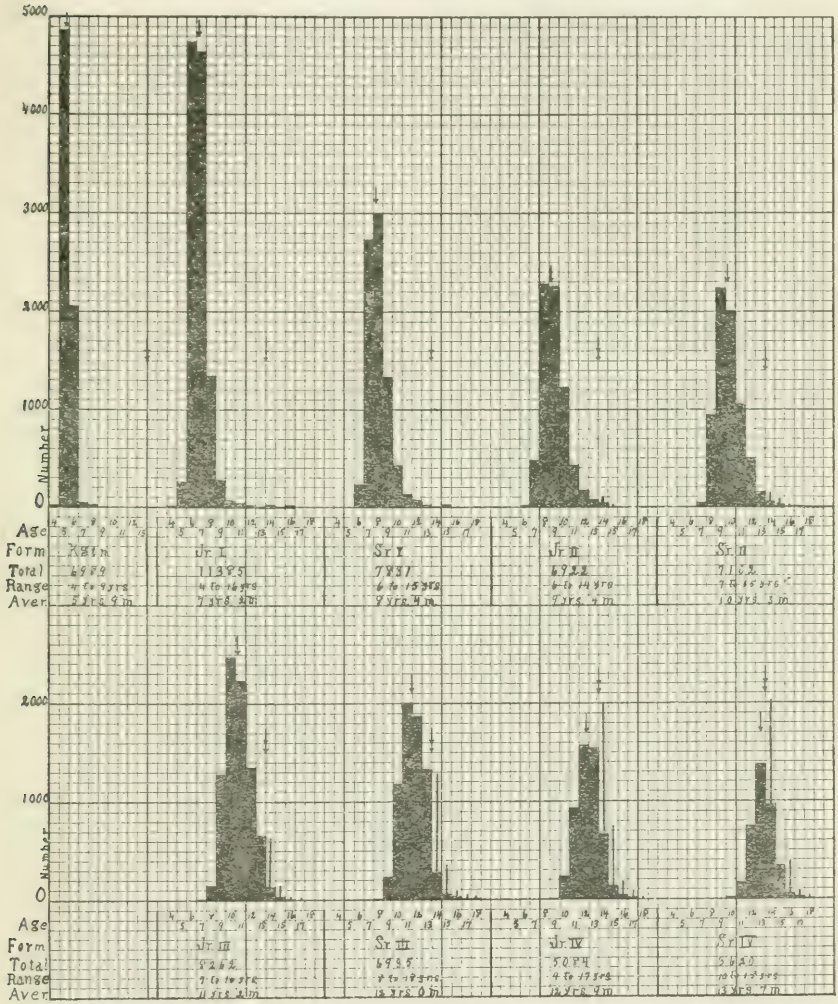
enrolment) who are repeating their present grade and of whom one-fifth are shown in the figure as failing at the present time to secure promotion. The latter will belong to the ranks of the double repeaters,[1] and of those who are now succeeding not a few may have failed before or may fail on later occasions. It is this entire repeater group that is most largely represented in employment elimination. Our figures on 274 cases examined showed 67 per cent. of boys and 51.5 per cent. of girls to have been repeaters. As the entire school record was not obtained in many instances it was felt that both figures, and particularly the latter, were lower than would be shown by a more extensive and accurate enquiry.[2] In any event the proportion shows that slow advancement through school is an important factor in determining those who leave to work. How far speeding up in promotion can relieve this situation without creating alternative difficulties, or whether it can really touch the root of the retardation trouble are matters for consideration.

In connection with the method of promotion the ages of pupils in the various grades has an important bearing upon elimination. The age-grade distribution for the beginning of the school year, September 1918, is shown in Graph IV. Each square of the abscissa represents one year of age for each form and the same distance on the ordinates is 100 pupils. The plotting allows a span of fifteen years for each form, from the 4th to the 18th year of age inclusive. The actual age range in each form at this time of year is quoted to facilitate reading the extremes of each figure. The double barbed arrows show where the legal age of leaving (14 years) comes in each distribution. The single barbed arrows show the position of the average age for each form. If, for instance, a

[1]Children who fail only once are described as *single* repeaters, twice or three times but in one grade only are *double, treble* etc. repeaters; once in one or more grades as well as twice or oftener in one or more additional grades are *multiple* repeaters.

[2]From the total school returns of fourteen American cities the number of repeaters among boys was found to exceed the number among girls by 13 per cent. "Laggards in our Schools," L. P. Ayres, 1913, p. 157.

GRAPH IV. Distribution of 64130 children enrolled at the beginning of the school year, Sept. 1918, showing the number of each age in different forms. From table K, Annual Report, 1918, p. 86.



child on entering the Junior III in September were just 11 years 2 months old there would be approximately 4,100 children in that form younger and a like number[1] older than himself but if he were 9 years and 2 months only about 4 per cent. of the Junior III enrolment would be younger. Pupils who are older than the average age in their form are said to be *over-age*. Other things being equal the chances of a pupil dropping out from a given form to go to work would vary as the amount of his over-age. It is therefore with the extremes of over-age that we are chiefly concerned.

Inspection of Graph IV shows that the age distribution in every form above the kindergarten assumes significant proportions in from 6 to 7 different "year-ages." Moreover in every form from the Junior I onward there are some pupils who are legally of age to leave and from the Junior III onward the numbers in this group are significant even at the beginning of the school year. At the conclusion of a school year the age-grade distribution is displaced forward nearly a whole year. The result is too similar to require charting, the proportion of different ages in each form remaining fairly constant except in the two lowest where beginners are entering during the year. This displacement in the course of the year, however, carries forward over the legal age of leaving a considerable number in all forms from the Junior II onward and for those who intend dropping out the advent of their four-

[1]This is not strictly correct as 11 years 2 months is the *average*, not the *median*, age of children commencing the Jr. III. The median would be the age of that child who stands half way in the entire Jr. III group when arranged by age from youngest to oldest. The median and the arithmetical average in any distribution only coincide under special circumstances. They usually are close but the difference is important in understanding the distribution under consideration. If units with high or low value predominate the average moves above or below the median respectively but the latter is not affected. The importance of the median in psychological and educational enquiries is that it takes full account of the individual as an individual regardless of his ranking in the group. In our example the median age is approximately 11 years 3½ months; the average being appreciably lower shows that in this form younger children on the whole predominate.

teenth birthday is marked by contagious restiveness which will be discussed below. The amount of this increment in the 14-year old and higher groups is shown in each grade from the Junior II onward by the length of the short perpendicular line in the higher age column. (Data from Annual Report 1919 p. 35.)

Every educator recognizes in over-age a serious problem of large dimensions.[1] Nevertheless there are different points of view as regards what is involved in over-age and how it may be treated. It is generally agreed that by careful selection of school staff and methods an appreciable reduction in the over-age of pupils in all grades of a system may possibly be secured. But has this, fundamentally, anything to do with over-age? Is it to be assumed that by further modifications of personnel, curriculum or the like, a degree of efficiency might conceivably be attained in which over-age would have been reduced to a lowest limit? Apart from such external causes of over-age as late entrance or protracted interruptions, over-age is most closely related to the promotion policy within the system. The teacher handling his class, and the school administrator studying the problems of the system as a whole, may see the matter from different angles. Any one who has taught in a graded public school will appreciate the fact that a teacher feels that the proficiency of the pupils he promotes is in some measure an index to his colleagues and superiors of his own teaching ability. His desire, therefore, that his promoted pupils should be letter perfect in their work may tend to restrict the number of his promotions and to increase the amount of over-age in his grade. On the contrary any administrative pressure which urges a high percentage of routine promotions (and a consequent apparent reduction in

[1]The amount of over-age represented in Table K, (Graph IV) has been calculated by the Bureau of Municipal Research, Toronto. Reckoning the kindergarten age as 5 yrs., Jr. 1 as 6, etc., to Sr. IV, 13, the percentage of over-age to total enrolment at the beginning of the school year was 51.39. Measurement of Education Waste in Toronto Public Schools, May 1920, p. 25.

over-age figures) as a criterion of educational progress may (and in the opinion of some principals, does) result in the long run in an even greater injustice to the slow child. Whichever point of view may predominate in practice the fact remains that there are great individual differences in the mental ability of school children. This basic fact is revealed by the constancy of the range in ages found in all grades of the system. Over-age is itself a symptom rather than the disease, and merely to manipulate it does not effect a cure. The basic differences in individual ability are certainly not eliminated and possibly not greatly altered either by restricting or accelerating the speed of promotion, however important such control may be from other points of view. A promotion policy is important but at the same time every means should be taken to measure accurately the educational differences in the particular children concerned. In doing so we should be dealing directly with what is probably the most important cause of over-age. We should not be removing the cause but with this information we should be better able to adapt the technique of teaching and promotion to suit the needs of the situation.

The preceding discussion of factors in school organization which affect elimination may now be summarized:

1. The annual enrolment by forms shows marked peaks at the Junior I and Junior III.

2. The latter is significant and is caused by a speeding up of promotion in the three half-year forms preceding.

3. This policy is highly desirable in the interests of those who are dropping out (as well as of others) even though it results in a massing of pupils in the middle of the system, and thereby may tend to increase the rate of elimination at that point.

4. One remedy for this difficulty lies in the further extension of rapid promotion, viz. extensive skipping for superior children.

5. The age distribution in school shows a uniformly wide range of year-ages in all forms, so that there is an over-age

problem throughout the system, which we attempt to regulate in promotion.

6. Wise promotion may alter the apparent amount of over-age, but cannot affect its main cause.

7. The effect of promotion as a control for over-age may be judged by the result at the legal age of leaving—either an excess or defect of promotion tending to increase voluntary elimination.

8. A promotion policy should be based upon accurate knowledge of the educational capacities of the entire school population, superior, average, and below-average children. Such information would also assist in giving the proper perspective for many school problems including that of employment elimination.

Amount and Kind of Elimination

The Board of Education requires monthly returns from every public school principal regarding all pupils dropped from the school roll. This includes cases of transfer as well as of permanent dropping out. The forms used in making these returns distinguish eleven reasons for leaving, and as merely the number of pupils under each reason is indicated it is not possible to identify or trace individual cases from these records. Moreover the reasons which are enumerated being adapted to the needs of administrative problems, do not lend themselves very well to the purpose of follow-up records. The complete returns of dropping out for the four years 1917-1920 (1920 unpublished) are reproduced in Table 1 (Appendix G, p. 105), through the courtesy of the Board. The relative importance of different factors which contribute to elimination is shown, but the number who left to go to work cannot be known directly from this table as some might be included in various sections, for example, (c), (g), (h), (i), (j); the majority of course, would be found in (h).

In 1918 the Board introduced a system of keeping individual records, the importance of which from the standpoint of educational research cannot be over-emphasized.

With the record of each individual on a separate card, by sorting the cards according to the different types of information on them, the influence of one factor on any other may be critically examined and conclusions may be drawn in so far as tendencies are indicated by mere weight of numbers.

Two cards are used for each pupil, an Enrolment card to be retained in the school and an Admission, Discharge, Promotion (A.D.P.) card to be filed at the central office when filled in. The enrolment card calls for eight types of information about the individual, such as present and previous school progress; date of birth, of entrance to and discharge from school; parents' country of birth and child's place of birth; destination of pupil on dropping out, enumerating for this purpose high school, work, remain home, death, chronic illness, departure from the city, and asking that other reasons be specified. This card is made out when the pupil first registers and remains on an active list, being brought up to date periodically. If the pupil is transferred or drops out the card goes on the school's inactive list, and in the case of transfer a new enrolment card is made out for the child in the school to which he goes. The enrolment file thus remains complete in each school.

The large number of transfers (Table I) renders it impracticable to use these enrolment cards for central registry purposes. When a pupil drops out permanently the teacher whose grade he leaves is responsible for filling out his complete record on an A.D.P. card, and these are turned in to the central office once a year. This card is designed as a continuous record of the child in the school system. It provides space for recording all the important information in the enrolment card and in addition the pupil's attendance and proficiency by subjects in each school attended. The reverse of the card is for reporting the child's physical and health record for the whole period at school, the school nurse being responsible for this detail. The difficulty which transfer cases create in the matter of making a continuous record, either of health or school proficiency, is easily appreciated; it necessi-

tates both complete uniformity of practice throughout the system and also that the continuous report card accompany the child.

The year which was chosen for the present enquiry, 1918-19, was the first in which the card system was in operation. The returns in the A.D.P. cards, though incomplete, were found fairly satisfactory. The returns by cards can be checked as to numbers against the gross monthly returns on dropping out supplied by principals (Table 1). Card returns were found for 81 out of the 84 regular schools then in existence, and for one institution out of the dozen or so in which the Board was conducting educational work. The total elimination omitting transfers was 11293 (Table 1). Allowing for the unreported dropping out from the institutions and also from the three regular schools without cards (about 425), and counting out those removed by death (106), a total of approximately 10,500 A.D.P. cards might be expected from the 81 schools which made returns. The actual number of cards returned was found to be 6,779 (64.5 per cent.). It was considered that this was a sufficient proportion to allow of a representative analysis of elimination in terms of the information listed on the cards.

The main object of this analysis was to discover the number and proportion of eliminated pupils who leave to go to work, so far as is known and reported by teachers. This group was therefore kept distinct. Of the other reasons for leaving a somewhat different grouping from that of Table 1 was adopted in order to isolate those which might be significant for our purpose. As the card system permitted the classification of data according to sex, nationality, grade left, age, etc., this was done in order that the influence of such factors on juvenile employment might be examined. Allowance must be made for the fact that this information was being reported for the first time by many hundreds of teachers. Upon some points the accuracy of the information would depend upon the judgment of the individual teacher, e.g. in distinguishing between leaving to work and leaving to help at home. In cer-

tain cases the information given the teacher may not represent the actual course pursued by the child after leaving, but judging from our small group of cases followed up, such instances would fall well within 5 per cent. for the first year out of school.

The record of proficiency in school work and in attendance was not sufficiently reported on the A.D.P. cards to be of use, and had to be obtained from the school registers. Time will solve such difficulties in a card system if pains are taken to introduce standard definitions of terms and uniform practice in reporting.

Accurate information in the matter of nationality, particularly of foreign nationality, is of special importance for the educational system of Toronto, as of the country at large, in order to gauge the process of assimilation and the influence of racial differences in industry. This information was the least satisfactory of all that was reported on the cards. The child's place of birth and the parents' or guardian's country of birth were asked for. In a few cases neither was reported and very frequently only the latter. It is to be regretted that in the case of foreign children insufficient discrimination of countries was given on the cards, in consequence of which the foreign group had to be classed as merely non-Anglo-Saxon. A chief difficulty was that the child's birthplace was not uniformly adhered to as the criterion of nationality, although this was usual in the case of Irish, Scotch, and English children. With foreign children racial extraction was apparently the accepted criterion, and without regard to the family's length of residence in Canada, so that a child born and reared in a Jewish home in Toronto would be listed as Jewish, not as Canadian. The shading off of this distinction in the case of families which have been here for two or more generations could not be estimated, as it was left entirely to the teacher's judgment, which would be guided by his impression of the child or of the home. While these discrepancies in classification do not vitiate the grouping by nationalities as a whole, they prevent the detection of many general tendencies which

are of educational and psychological importance and which could otherwise easily be determined. It is desirable that the adoption of a standard practice in reporting this information should not be delayed.

For the above reasons a rough three-fold classification of pupils by nationality was accepted and adhered to in examining both the school and industrial records, viz. 1. Canadian (i.e. born in Canada of native Canadian parents), 2. British (the large majority being born in the British Isles), 3. Foreign, which included all those not in either of the other two classes. A few children (less than 100) who had come from the United States were included with (1) or (3) as the case seemed to warrant.

The distribution of the 6,779 cases of elimination from 81 schools is shown in Table II (Appendix G, p. 106). The analysis is in terms of ten headings which include the reasons assigned for leaving on the cards. The headings are arranged in order of total numerical importance. Each of these groups is further divided according to sex, nationality and grade left, the Junior and Senior being combined for Forms I and II. Ninety-six per cent. of all cases fall in the first four groups, viz. left town (40.65 per cent.), continued higher, technical or special education or passed Entrance (26.72 per cent.), left to work (18.45 per cent.), no reason assigned (10.2 per cent.). In regard to the latter group it is probable that teachers as a whole have less intimate knowledge of the circumstances determining elimination in the case of those leaving town and those going to work, than in the case of any of the other reasons that are listed. The distribution by forms of the unassigned group tends also to support this view. On this assumption, allowing that a fair proportion of the 10.2 per cent. of unassigned cases should be reckoned along with the 18.45 per cent. which were actually reported as leaving to work, we may conclude that the employment elimination constitutes not less than 20 per cent. and probably nearer or even above 25 per cent. of the total annual elimination from our public schools. In other words, those who leave school to go to work may be

said to approximate in number those who qualify to continue higher or technical education.[1]

The numerical magnitude of the local problem of juvenile employment as regards those leaving without Entrance can therefore be shown. Taking the enrolment and elimination for the past four years from Table I, and accepting a conservative figure of 22½ per cent. as the ratio of employment elimination to total elimination we have the following:

	1917	1918	1919	1920
Total No. enrolled in June	63024	63520	66256	68403
No. eliminated (excluding transfers)	10379	11293	12692	14425
Estimated No. leaving to work	2335	2540	2851	3242

The relation of the work group to other groups of eliminated pupils (Table II) as regards the relative size of the component sex and nationality factors deserves examination. Thus of all children leaving town the percentage for foreign is 5.7, and for the British 45; of those continuing or qualifying to continue their education, for the foreign 10.77, British 33; of those stopping to work, for the foreign 11.4, for British 47.5; while of the total number eliminated the foreign are 8.24 per cent, the British 42 per cent. These proportions may indicate tendencies of great consequence. By careful cross comparison many such points which otherwise would be lost in the complexity can be brought to view. Unfortunately, however, the value of such comparisons is seriously reduced from the lack of proper standards of comparison (norms). We cannot, for instance, say that 5 per cent. of foreign children among those leaving town and 10 per cent. of those continuing their

[1]The fact that pupils qualify is, of course, no assurance that they continue. The majority of those who cease school on passing Entrance probably enter employment without delay. Estimating this group roughly as the difference between the number passing Entrance in June and entering High School in September, the proportion of pupils leaving to work on securing their Entrance was 19.3 per cent. in 1918 and 22.8 per cent. in 1919. The situation in regard to the early dropping out from High and Technical Schools to go to work is contemplated as a later study.

education is either low or high until we know the percentage of foreign children enrolled. The only norm we have is that 8.24 per cent. of eliminated children are foreign; the records on file do not admit of the proportion of foreign enrolment being ascertained, and this is the fundamental basis from which to gauge such tendencies. Such information is almost indispensable in diagnosing the ultimate effects of an educational policy and in planning innovations; it could be secured by an inexpensive extension of the present statistical service.

From the distribution by grades in Table II the percentages leaving to work from the various grades are as follows:

Sr. IV	Jr. IV	Sr. III	Jr. III	II	I
22.5	32.6	24.9	12.4	5.3	2.6

Remembering that upwards of 3000 leave annually to work, one realizes that many children are hoping to make their livelihood without the rudiments of an elementary education. The figures show at a glance the large part played by this group in the problem of over-age in each form. It has been pointed out that the careful promotion policy adopted in Toronto in the first and second forms reduced the voluntary elimination there, but tended to increase it in Form III. The total result is shown above. In order accurately to estimate the relation of employment elimination to over-age in the higher forms an analysis is required of the age-form distribution (1) of the total elimination group and (2) of the employment group, which will reveal the numerical importance of the latter.

Table III shows the distribution of total elimination by forms and ages in 1918 as shown by 6,779 A.D.P. cards examined (Appendix G, p. 108). The results are arranged with the nationalities and the sexes within each nationality separate in order that detailed comparisons may be made as desired. For simplicity percentages are given only in the grand totals. The ages are reported by half years, all over 16 and under 13½ being grouped with those ages respectively as not significant for our purpose. Those leaving when over 13½ and under 14 were distinguished in order to estimate the tendency in volun-

tary elimination to anticipate the legal age of leaving.[1] The Junior and Senior parts of Forms I and II are combined. A similar analysis of the 1,251 cases of employment elimination occurring within this group is given in Table IV (Appendix G p. 110).

In order to compare the percentages of children leaving at different ages the column showing ages unreported in Tables III and IV must be distributed. Assigning half of the 7.95 per cent. in Table III to the large group under 13½ years and the remainder in proportion to the other ages, and similarly in Table IV giving half of the 5.6 per cent. to the large group leaving just after fourteen, and the rest in proportion, we have in round numbers the following percentages for the different ages in each group. The percentage of total enrolment (by whole instead of half years) is also given to show the strong tendency toward over-age in the employment group:

	Under 13½	Under 14	Under 14½	Under 15	Under 15½	Under 16	16 and over
Total enrolment by ages	....	89.6	....	6.77	....	2.65	.98
Total elimination by ages	.50	10.6	18.75	7.5	6.75	3.	3.5
Employment elimination by ages	7	16.	46.5	10.5	11.25	5.	3.75

Our findings regarding the kind and amount of elimination from public schools may be summarized as follows:

1. Elimination for all reasons during the past four years has averaged over 18 per cent. of the total enrolment.
2. Not less than 22½ to 25 per cent. of this elimination (4 per cent. of the total enrolment) is represented by those leaving to work, this being nearly the same as the proportion of those who qualify to continue their education.

[1]According to the proximity of the child's fourteenth birthday to vacation or the close of the term this may or may not mean a serious breach of the law. It does indicate to some degree the desire to leave at the earliest opportunity.

3. The significance of differences between the sexes and nationalities among those leaving to work cannot be fully estimated because like information is not available in regard to the whole school population.[1]
4. Of those leaving to work, 45 per cent. do not get beyond the Senior III grade, but only 8 per cent. do not get past the II grade. None, of course, have Entrance standing.
5. Of all those leaving, 70 per cent. are under 14½ years of age and more than 90 per cent. are under 15½ years.[2]

These facts indicate in a general way from the school point of view the nature of the educational problem attaching to juvenile employment.

[1]From the data at hand many interesting points of detail could readily be worked out. For example, knowing the *average* percentage of employment elimination for the different school ages and comparing it with the distributions given in Table IV, one could detect variations in tendencies toward over-age, early leaving, etc., as between Canadian and British children, boys *versus* girls, and so forth. Similarly by using the average percentages leaving from different forms to go to work one can roughly gauge the relative amount of school training that is received before elimination occurs by the different racial or sex groups. Our object is only to refer to the method and at the same time the importance of having accurate and sufficient data for its application.

[2]The age distribution percentage of pupils passing Entrance, from unpublished figures of the Board on 2,853 successful candidates in 1920, is as follows:

11 yrs. and under	12 y.	13 y.	14 y.	15 y.	16 y.	17 y. and over
1.5	12.5	29.9	32.3	18.2	4.9	.7

II. SCHOOL RECORD OF SELECTED CASES

In order to supplement and check the preceding statistical results a selection of individual cases was made from those who left to work in 1918. The selection was made by schools, the advice of the Chief Inspector and the proximity of the schools to industrial rather than purely residential districts being relied upon to secure a representative sampling of the whole group. Twelve schools were represented, which differed greatly in size, one being a Junior School teaching only to the Junior III grade. The geographical distribution by wards was Ward I-2, II-3, III-1, IV-3, V-1, VI-2.

In was first intended to examine the record of all children leaving to work in 1918 from the chosen schools, but as cases of transfer presented difficulty in tracing school records, only children who had been in the given school three years or more were finally accepted, although this perhaps meant a selection in favour of the more stable families. This gave a total of 356 children, all of whom left before reaching Entrance standing with the exception of 5 who left from a Form V Commercial Class. In order to secure a sufficient representation (absolutely and relatively) of foreign children two schools with a predominating foreign enrolment were included. As it turned out this gave 82 foreign children, of whom about 80 per cent. were Jewish. For this reason our findings as regards foreign children will be largely characteristic of the Jewish element in schools and industries.[1]

The above basis of selection gave a fairly satisfactory representative group for intensive enquiry as may be seen by comparison of its components with those of the 1,251 children

[1]Ten nationalities were represented by the remaining 16 children, viz. 4 Chinese, 3 Finns, 2 Poles, and I of each of the following, Czeko-Slovak, Dutch, Hungarian, Italian, Norwegian, Roumanian and Russian. Of course, neither the proportion of the total foreign group nor its component nationalities can be taken as representing the composition of the foreign school population in Toronto.

from the whole system who were reported on the A.D.P. cards as having left to work in 1918. This is reproduced below from Table II by sexes, nationalities, and also by grades left with percentages.

	Total	Boys	Girls	Can.	Brit.	For.
A.D.P. Record No.	1,251	632	619	513	595	143
A.D.P. Record Percentage		50.5	49.5	41	47.5	11.4
Selected Group No.	356	192	164	112	162	82
Selected Group Percentage		53.9	46.1	31.5	45.5	23

	Grades					
	Sr. IV.	Jr. IV.	Sr. III.	Jr III.	II.	I.
A.D.P. Record No.	282	408	312	155	67	27
A.D.P. Record Percentage	22.2	32.6	24.9	12.4	5.36	2.6
Selected Group No.	79	100	94	64	16	3
Selected Group Percentage	22.2	28.1	26.4	18.	4.5	.8

The chief disproportion in the selected group is the over-representation of foreign children (23 as against 11.4 per cent.), and the resultant under-representation of Canadian children (31.5 as against 41 per cent.) due to the choice of schools. However, as the findings for the nationality groups were kept distinct, this should be a source of error only as regards comparisons between the sexes when all nationalities were combined.

Close agreement was also found between 1,251 central registry cases and the selected group as regards the age and grade of leaving. The data for the latter group are given in Table V (Appendix G, p. 112) in similar form to Table IV; the total percentages are reproduced below:

	13½ yrs. and under	Under 14	Under 14½	Under 15	Under 15½	Under 16	16 and over
A.D.P. Record	7.2	16	45.5	10.5	11.25	5	3.75
Selected Group	4.8	13.5	52	9.8	11.5	3.9	4.5

Accepting the selected group as sufficiently representative for our purpose, cross comparisons within it will reveal statistical evidence of various tendencies which should be clearly appreciated if remedial measures are to be planned in the

schools on behalf of juvenile employment. For instance, grouping the results of Table V by sexes with nationalities combined as below,

	13½ yrs. and under	Under 14	Under 14½	Under 15	Under 15½	Under 16	16 and over
Boys, percentage	6.75	14.6	49	9.9	10.9	3.65	5.2
Girls, percentage	2.44	12.2	55.5	9.75	12.2	4.25	3.66

it is seen that while the proportion of boys and girls leaving at or immediately after 14 years, is equal (70 per cent.), the boys distinctly predominate in leaving before the legal age (21.3 to 14.64 per cent.). On the whole, therefore, motives to which boys will respond are particularly required to combat this situation.

Again rearranging the data with the sexes combined under the respective nationalities as shown in Table VI (Appendix G, p. 114), the British children are found to predominate in early leaving and consequently, on the whole, do not reach as high an educational level by grades. This is distinctly a problem in racial psychology.

Before turning to the school register records of these children mention may be made of the following general considerations which characterize the psychological point of view in case work.

1. Each case is an individual problem and its special features should be studied in detail, but final judgment upon a case cannot be merely on an individual basis. The collective effect of many cases with like tendencies is itself a factor which reacts on the individual and *vice versa*. The investigator therefore must have clearly in mind the perspective between the individual and the group.

2. The individual in all his relations as a whole is the unit, and our judgment upon any one phase of his activity should not be extended beyond its place. One cannot assume, for instance, that the capacity of children leaving to work can be summarily measured by their standing in school. The child who has not done well and who begins to think of leaving no

longer has his eyes on his books. He is more responsive to the adult attitude in his home, and to the point of view of his working acquaintances, than to that of his teachers. Under such circumstances failure in application at school is only one factor, whereas the situation as a whole is the problem.

3. The psychological task in case work is not a moral one of giving advice, admonition, sympathy or the like, but the scientific one of ascertaining what circumstances lead to loss or gain of interest and endeavour, and what effects follow changes and new motives introduced into the situation. In other words the object is to find the facts in regard to what psychological effects do result individually and collectively from a given set of circumstances. In this, of course, the basic character of the individual is as important as the environmental factors which affect him, and among the latter must be reckoned any elements of moral suasion introduced by the investigator or others.

The record of selected cases was obtained from the school registers upon the following points as being related to voluntary elimination, (1) general proficiency, (2) best and poorest subjects, (3) attendance, and (4) repetition of grades. A continuous record upon these points covering the school career of children was not found compiled, and for the first two points our survey was restricted to the standing in the last term completed at school. The attendance record of pupils was examined for the last two periods of 6 months in the school. The repetition record was usually obtained for the whole period that the child had been in his last school. While for our cases this meant three years or upwards, the earlier data were usually not obtained, and therefore counted as free from repetitions, so that our report in regard to repetition would undoubtedly be more favourable than the facts warrant. Owing to the difficulty of locating early registers the above records were incomplete for some children, who were on this account omitted.

In respect to general proficiency it was pointed out above that our 356 cases were from every grade above the kinder-

garten, the numbers assuming considerable proportions in the Third grades and being greatest in the Junior IV. The standing of 153 boys and 136 girls from their average on all subjects for their last complete term in school is shown by nationalities in Table VII (Appendix G, p. 115). Although the cases reported are too few for definite conclusions, the indications from the general averages are that the girls of each nationality make a slightly better showing than the boys, and on the whole stand 1.5 per cent higher, although the median for girls and boys is approximately equal. Foreign children make the poorest showing in both sexes. British girls have the highest average and second highest median, and Canadian boys the highest median and the third highest average.

While such comparisons give us accurate knowledge of the relative standing among children leaving school to work, these figures do not provide a measure of the standing of such children with others who remain at school, which is a vital point in the relation of proficiency to elimination. Such a comparison on the basis of continuous record would show whether low proficiency was, on the whole, a cause or an effect of the tendency toward dropping out. Up to the present the proficiency distribution for the separate grades or for the school system as a whole has not been compiled. As results for a few schools would not be adequate as a norm, the question was felt to be outside the limits of this enquiry; no genuine measure of the proficiency of these children as a group was obtained. That lack of proficiency is not the chief excuse of leaving to work in many individual instances is seen in the fact that 21 per cent. of boys (24 per cent. of girls) had a standing of over 70 per cent., and 39 per cent. of boys (41 per cent. of girls) stood over 65 per cent. On the other hand it must be remembered that many chronic repeaters through force of drill may become more or less letter perfect without being able to use their heads. For this reason proficiency should be considered in terms of continuous record and in relation to repetition.

Moderate proficiency in the fundamental school subjects is

of the greatest importance for working children. Too often deficiency in this regard limits the usefulness of employees and prevents their advancement beyond a low level. The best and second best subject of each child, also his poorest and second poorest, were found from the registers for 342 children. In a few cases the second choice was not obtained. The resulting distribution is given in Table VIII (Appendix G, p. 116).

According to the school rating, reading and spelling are the best subjects, while composition and arithmetic are fourth and fifth, respectively, with a marked difference in favour of boys in arithmetic. Even in the cases of these subjects which were generally excelled in by children who went to work, it may be doubted whether their knowledge is of a kind that will serve their practical needs. On the whole the replies to our questionnaire showed serious inefficiency in spelling and phrasing, even in the case of pupils who had left the higher forms. As illustrating the importance of this situation for industry it was brought to our attention in one plant where girls wrap and pack many small packages, that their accuracy could never be depended upon in the small amount of adding and subtracting required in this operation. If this be the case with the fundamental subjects which in no uncertain way mean the bread and butter of these children, one wonders whether the remedy should be sought in further additions to or variations in the curriculum. The learning process for these children is not easy but in their own interest they should not be distracted or excused from the attempt.[1] Proper presentation to them of the importance of elementary education, from the wealth of concrete illustration in industry, might readily be used to stimulate both interest and effort.

[1]Not merely knowledge of the fundamental subjects but accurate use of this information is essential. Often children who can calculate do not key themselves to the point of doing so correctly and quickly. They do not appreciate the practical difference between a mistake made in class and a mistake made on the job. This sense of responsibility and the degree of concentration it requires are matters of habit formation for the establishment of which industry should properly look to the schools.

Experienced teachers usually know some time in advance what boys and girls are likely to be dropping out. One of the more obvious symptoms was said to be frequently a falling off in attendance by the child toward the end. In order to test this the attendance returns for the children who left from eight schools, which had an average attendance of 85.4 per cent. were examined. Cases of incomplete returns and of absence through illness were omitted; no discrimination was possible between excused and unexcused absence. There were 83 boys and 82 girls in the selection. For each child the data were taken for the 6 months of school immediately preceding the official date of leaving (this may be referred to as period B) and also for the previous 6 months (period A). Instead of a continuous record upon each child's attendance a comparison of periods A and B was made as a measure of terminal irregularity. The following are the main results:

1. For period A, 63 per cent. of boys (and the same of girls) were above the general average and only 37 per cent. below; for period B 50 per cent. were below for each sex. In amount the average attendance in period A was 87.6 per cent. for boys and 85.6 per cent. for girls; in B, 81.8 per cent. for boys and 70.1 per cent. for girls.
2. The situation in detail for period B showed that there was a decrease of attendance among 67½ per cent. of the boys averaging in amount 12.2 per cent. of their school time, (61 per cent. of girls, averaging 12.6 per cent. of time); there was an increase of attendance by 30 per cent. of boys averaging 9.1 per cent. of time (33 per cent. of girls, averaging 6.9 per cent. of time); and 2½ per cent. of boys (6 per cent. of girls) remained unchanged.
3. Of those whose attendance decreased in period B, 32 per cent. of the boys (28 per cent. of girls), fell from above to below the general average in these schools; while of the comparative few who increased, 28 per cent. of the boys (11 per cent. of girls) rose from below to above the general average.

Broadly speaking these results show that few children maintain uniform attendance during their last year before leaving to work; that about twice as many decrease as increase, and that the rate in the former case is from one and one-half times to twice that in the latter.[1] Among the eight schools examined considerable difference was found in this regard, which suggests that the attitude of the community toward school work and early employment as well as the success of teachers in meeting this problem are important conditions to be considered. Various differences which were noted between the sexes and the nationalities do not permit of generalization until a much larger number of cases is examined.

Whether this falling off in attendance during the last months at school is due mainly to indifference of the children and their parents to school work or to the children's desire to spy out the land and look for work, or whether it is one type of the restlessness that marks the dawn of puberty, its existence at least shows two things. First, a large portion of the time of the majority of those who are going to leave is wasted educationally during that period, with the result that the educational returns for the time they do attend must be seriously reduced. Secondly, it shows that in the eyes of the children concerned there is no connection between success at their school task in hand and their subsequent success outside. The psychological significance of the latter point lies in the fact that the child's failure to associate successful performance of his present task with the next step in advance, as being a necessary means to his end, produces an attitude which is more than likely to be carried over and reproduced in his industrial experience. We desire neither to excuse nor to

[1]Assuming this to be the case with children about to drop out it should be checked by comparing this amount of absence with the amount for these children at earlier periods in their school life and also the total amount (excused and unexcused) for the system.

A survey of absence from one Toronto school of 1,385 pupils for 2 weeks in March 1918 revealed a loss of 12.7 per cent. of school time by the children. (*Study of non-attendance of pupils at school*, Collins, Richardson and Sandiford, The School, Jan. and Feb. 1919).

condemn the child's loss of interest or self-respect in maintaining a creditable school record, but only to suggest that his subsequent instability at his job with the same indifference to failure had its roots in his school experience. From this standpoint the remedy cannot be found solely in industry or in placement but should reach back to include this source. Such a policy would aim at prevention rather than cure.

Repetition of grades undoubtedly plays a large part in voluntary elimination. In Section I we tried to show that owing to the great individual differences between children, and consequent over-age in grades, considerable repetition is inevitable however carefully it be regulated through promotion. In the case of extreme over-age in the first and second grades the problem is usually one of distinct mental deficiency, to be dealt with through the special class or school. It is repetition through the system in general which counts in employment elimination. In the Annual Report repetition is treated in detail but only as regards the number of terms a pupil has been in his present grade. Even comparing the reports of successive years this does not furnish information as regards the fate of the individual in respect to promotion. In order to gauge the discouraging effect of repetition it is the cumulative record that is required, and in so far as the point of view of continuity in the child's progress is accepted the continuous record, i.e. the longitudinal rather than the cross-section method of recording and reporting, will be developed.

The distribution of repetition for part of the school career of 274 children leaving ten schools to work is given in Table IX (Appendix G, p. 118). Owing to the incompleteness of the data, repetition was classified only by type rather than by the grades concerned. If it could be classified according to the latter, we should be able to ascertain whether and to what extent the incidence of repetition coincided with heavy voluntary elimination, which would be an index of its effect in that regard. From the data at hand it is merely seen that 59.8 per cent. of those leaving to work have repeated grades and that 22.6 per cent. were persistent repeaters. These figures are

on the basis that Senior I, Junior and Senior II are half-year forms, and that an additional term in them counts as a repetition. If this be not accepted, the total percentage of repetition for the 274 children above would be slightly under 50 per cent. The figure of 59.8 per cent. is somewhat lower than has been obtained in other places,[1] but allowing for the incompleteness of the data it approximates to the two-thirds proportion which other workers have found to be retarded among working children.

In this section on the school record of selected cases it was intended to develop three points, (1) that in the interest of the large number of children leaving to work as well as of their employers, educators should pay special attention to the matters of proficiency, attendance and repetition in ways that may best help these children in entering and succeeding in industry; (2) that in order to appraise these matters it is desirable from the standpoint both of the school administrator and of the teacher to develop such standards of measurement and methods of recording as will assist in handling the individual case and in gauging the results that are being obtained on the whole; (3) that the school-room horizon is in itself too narrow to show clearly what happens to its products after they have passed out, and that therefore a measure of co-operation and consultation with those who must receive and carry these children forward might be useful in giving them a good start.

[1]Investigation of 1,363 working children from the public schools of Cincinnati, 1912, showed 67 per cent. retarded (two years or more overage by forms) (*Facts about working children of Cincinnati and their bearing upon Educational Problems*, H. T. Wooley. Elementary School Teacher, Vol. XIV 1913-14.)

III. THE HOME FACTOR

The principles governing case work for the individual apply equally in studying the home. While each home is a subject for enquiry upon its own merits its influences cannot be estimated as independent of the locality of which it is a part. A proper perspective of the relation between home and neighbourhood is particularly important in understanding the interests of adolescent children outside the hours of school and shop. Again, the home as a whole with all its complex influences on the individual child is our unit. Many factors in the child's home connection may, in combination, be loosening his hold on school and pointing him to work. The investigator should not, for the sake of simplicity, magnify the proportions of any one. The sum total of the home influence can rarely be estimated in terms of any single factor. Finally, the object is not to say what ought or ought not to be the place of the home in this matter, but rather to ascertain as far as possible what part home and locality influences do play in starting juveniles to work and what changes occur when new forces are brought to bear.

A plan of home visiting was first arranged in co-operation with the Department of Health, whereby a special investigator accompanied the school nurse in her district rounds. It was soon found that this combination tended to defeat its purpose through the confusion it raised in the minds of those interviewed. The health point of view which the nurse represented was clearly appreciated in the home, but transition in the interview from it to the industrial record of a child at work was found to be difficult and consequently inimical to the interests both of the nurse and of the investigator. The plan of combined visits was therefore discarded, the nurses taking over those homes which they know intimately (about

10 per cent. of reported cases). Direct contacts without introduction were made with the remaining homes and the reception was uniformly satisfactory. In each case an attempt was made, by observation and enquiry, to determine from the home point of view why the child left school and to learn the details of his experience since leaving. In the majority cases it was possible to compare the parents' version upon particular points with the child's, the teacher's or the nurse's.

The complexity of home influence which was revealed rendered tabulation difficult. A psychological basis of classification was finally adopted on the assumption that the most fundamental point in the relation of the home to juvenile employment is the fact that home influences do culminate in the child's leaving school, i.e. he is not pushed out, he leaves. The home circumstances which led to this result were accordingly classified in three groups: (1) cases of necessity, (2) cases which were not financially necessary but where the child and the parents acquiesced in his leaving, (3) cases where the parents objected but yielded to the insistence of the child. No cases were included under (1) unless the evidence was convincing. Several children whose school record had been obtained had since moved from town or the family could not be found; in a few cases the facts were not sufficiently certain. These omissions amounted to 15 per cent. of our selected cases. The distribution of the remaining 304 cases by nationalities with percentages is as follows:

	No. Cases	Necessity	Acquiescence of Parents & Child	Insistence by child.
Canadian No.	98	28	54	17
Canadian Percentage		28.6	55	17.4
British, No.	135	57	65	13
British Percentage		42.2	48.2	9.6
Foreign, No.	71	29	40	2
Foreign Percentage		40.8	56.4	2.8
Total No.	304	114	159	32
Percentage		37.4	52.2	10.4

The proportion of necessity cases, 37.4 per cent., is considerably higher than the pre-war figures obtained elsewhere;[1] it is probably an over-estimate for Toronto, since several of our schools were in the most congested parts of the city. With few exceptions the economic factor predominated in this group. About one-sixth of the necessity cases were in the nature of emergency circumstances, which, abruptly though perhaps only temporarily, affected the family income, e.g. accident, war injury, death, serious illness, desertion. In about an equal proportion of cases shiftlessness was apparently the chief difficulty. The remaining two-thirds were cases where a critical point had been reached in the development of the family and the eldest child at school had to help out. The size of the family, irregularity of work for the breadwinner, the decease or ill-health of one parent, the presence of a delicate or crippled child, were the main factors. In a few foreign families recent arrival was a contributing cause.

Of these compulsory withdrawal cases 60 per cent. had not passed the Senior III grade, as compared with 45 per cent. of all children leaving to work who had not done so. Underfeeding and over-work as well as the distraction of home responsibilities are important in this connection. In many cases these children are capable of doing creditable work in school. For these an extension of the small scholarship plan is desir-

[1]Mrs. Wooley's report and references on this point from the Cincinnati Survey, op. cit. p. 135, is as follows: "The final estimate was that 73 per cent. of the families did not need the child's earnings, while 27 per cent. did. This estimate is very nearly the same as that made in the Government investigation (29.3 per cent., *Conditions under which Children leave School to go to Work*, Wash. 1910, Senate Document No. 645, p. 57); but is a little more than that of Massachusetts towns (24 per cent., Report of the Comm. on Industrial & Technical Education, Mass., Columbia Univ. Educational Reprints, No. 1, 1906, p. 92.); or of New York (20 per cent., Report of the Vocational Guidance Survey—A. P. Barrows, Bulletin No. 9, Public Education Assoc. New York, 1912). The only estimate very much higher than this is one made by Mr. Talbert in the Stockyards district of Chicago (53 per cent.). where the conditions are exceedingly bad."

able,[1] as having the double advantage of keeping the child an additional year or more in school, and of permitting a degree of supervision over the entire family budget.

In about five-eighths of our cases economic necessity was not thought to be the reason (though sometimes the excuse) for leaving. In some British homes the factory hand tradition played its part in sending the child from school to work at an early age. But British homes had the smallest representation in this group. In other words parents of the majority of Canadian children who drop out either see no advantage in the child's remaining, or at least less advantage both for the child and themselves than in going to work. Further, in at least half of all cases, the child arrives at the same opinion some time before his fourteenth birthday with the inevitable result that he leaves at the first opportunity.

In a minority of cases, which however are significantly numerous among Canadian homes, the parents disapproved of the child's leaving but finally yielded to his wishes to do so. It must not be assumed that the point of view of these children is merely the negation or avoidance of school work; it shows the spark of initiative as well. Frustrated of success in school they crave an outlet in economic independence, or at least a chance to try what they feel they can do. In not a few cases this initiative is probably deep-seated and will be the source of continued success outside.

Assuming that a fair elementary education is important for juveniles going to work, our first problem is that this assumption is not accepted by the majority of those directly concerned, at least if their action represents their conviction. Moreover, dissemination of education being in one sense a selling process, unless the learner be in a receptive mood, success is prohibited. If, therefore, further education is to be offered

[1]The London County Council award annually about 1800 scholarships at secondary schools to children coming from elementary schools. The majority of the scholarships come to an end when the scholar reaches the age of 16. (*Handbook for Local Advisory Committees on Juvenile Employment in London*, 1913, p. 24.)

and accepted by those who are now dropping out, pains should be taken to convince them of its worth. The objection to propaganda on behalf of public education is that least effect is produced where it is most needed, and the same may be true of compulsion in education. Our group of insistent children suggests one way of approaching this aspect of the problem, namely, that in so far as the worth of an educational programme in respect to juvenile employment is thoroughly sold to the children at school it is thereby sold also at home.

The preceding points regarding home influence upon leaving school may be thus summarized:

1. Somewhat under three-eighths of those leaving are constrained by economic necessity. Many of these cases present problems in public health and public welfare. Small scholarships would often assist.

2. Over five-eighths leave, not from economic necessity, but because in their judgment it is best to do so.

3. In everyday experience there are points beyond which parents (and also children) feel they have a right to their own time and should control their own engagements (e.g. in regard to the number of hours of work); limitation of this right is resisted.

4. Such points are most sharply defined for those living near the margin of necessity.

5. In education the age for compulsory attendance is one such point for the parents and children of such families as we are considering.

6. Any attempt legally to defer a year or two the right of self-determination of children's time, without at the same time taking steps to convince the families most concerned that such a step is in their interest, may produce an attitude which is not conducive to successful education.

7. Granting that this additional education is desirable, the discovery and application of measures which will convince such families of this fact are an essential part of any educational and industrial programme dealing with juvenile employment.

Home and Neighbourhood

In the preceding classification of circumstances that contributed to the child's leaving school, one element which influenced the final opinion of the investigator was observation of the home itself and the neighbourhood. The difficulties which this involved and the method that was used may bear comment.

The initial difficulty in examining the complex circumstances in individual homes and localities is in keeping clearly in mind the special object of enquiry in order to separate those factors which are relevant. A second difficulty is to estimate accurately the relative importance of such factors in particular cases. Thirdly, if localities are to be compared and a view of the whole situation obtained, some standard of judgment must be accepted and adhered to by those engaged in the work. Finally to be effective this standard must in practice yield findings of sufficient accuracy to be reproduced independently by any competent investigator, or at least that differences in the final estimate may be traced down to those elements upon which the difference of opinion exists. In so far as such principles are applicable, quantitative scientific methods may be utilized in case work, otherwise the investigator must be content with descriptive analysis and the attendant difficulties of the personal equation which, in social work, are peculiarly great. As these principles have been successfully used in the rating scales of personnel work[1] an attempt was made to adapt them with suitable modifications to the present problem.

Briefly and in general, the procedure in making and applying a rating scale is as follows:

1. Determine those factors of a situation which are essential for the purpose in hand.

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[1]An extensive application of the rating scale was made in the U. S. Army. (*The Personnel System of the United States Army*, Wash. 1919, Vol. II, p 252ff.) An illustration of the method as applicable in industry is given in Appendix A.

2. Select a set of concrete instances for each factor, being sure that these instances possess the given factor in different degrees from greatest to least.
3. Assign arbitrary numerical values to the instances of each set which will represent the degree to which the particular factor is possessed.
4. If some factors are more important than others, decide upon their relative importance and assign appropriate numerical values in the respective sets of instances.
5. Use each selected set of instances consistently as a standard or scale for measuring other instances in respect to the amount of that factor which the scale represents. Indicate the position of any instance on the scale by assigning it the proper score.
6. Having measured any instance in respect to each factor for which there is a scale, add up the separate scores, to give the total rating of that instance in regard to the factors concerned.

In applying this method of measurement in reporting the characteristics of localities where working children live many points arose which had to be arbitrarily decided, for example, what constitutes a locality? The physical properties of a locality are of course the easiest to rate, but their relation to the motives and ambitions of the residents is indirect. Nevertheless it was felt that the type of locality is to some extent an index of the standards accepted by those who people it and that an attempt should be made to rate these features and at the same time make allowance for the intangible forces which may be perceived in the community.

After experimenting along these lines the following plan was found useful in comparing localities. Three main factors were selected, A. physical features of streets and lanes, B. physical features of homes and premises considered collectively, C. social morale of the locality.

Factor A was sub-divided into three sections with specific features enumerated in each. These sections were given

weighted values of 50, 30 and 20, together totalling 100 for factor A. Four streets were then arbitrarily selected as illustrating different degrees of excellence in these features. These streets were carefully studied and evaluated under the sub-sections of A. Their respective total scores of 100, 80, 60 and 20 were then accepted as constituting a four-place scale. In order that the scale be continuous and sufficiently calibrated, a range of possible scores was allotted to each place, the whole running downward continuously from 100. This finally gave a four place scale for factor A slightly weighted as follows: I. 100 to 85, II. 84-65, III. 64-40, IV. 39-0, with one of the selected streets belonging to each place to serve as a basis of comparison. Factor B was treated similarly but with a different weighting of the sub-sections, which again totalled 100, and a partially different selection of streets to serve as norms.

Factor C, which dealt with the intangible qualities and forces of the locality, was not rated in the terms of norms. Observation of the locality coupled with the opinion about it obtained from municipal and other officials was used as the basis for a consensus of opinion. According as the report was favourable or the contrary a numerical value indicating the degree was assigned in the form of a bonus or penalty respectively to the total score of A and B, the extreme score of C being plus or minus 20.

In rating a given locality its score was first determined separately for factors A, B and C; summing these algebraically gave a total score; dividing this by two gave a final rating on the basis of 100 points. Allocation in the four-place scale was made only in terms of the final score.

The locality rating scale was supplemented by a second scale for comparing individual homes. For the latter, particular homes were not selected as norms because it was felt that the home should be rated in relation to its locality. The procedure was therefore first to rate the locality and then the home within the locality. For this reason, while the general lines of a rating scale for homes may be indicated, the scale

itself has to be made from the particular locality containing the home in question. This requires a degree of local concentration which was outside the bounds of our enquiry except in an experimental sense. The two scales, which are still in the experimental stage, are given in Appendices B and C.

A trial application of the locality rating scale was made in regard to 283 families, the remainder being undiscovered or for various reasons not rated. Frequently, of course, families fell within the same locality owing to the grouping of our cases. Except in a few instances the rating was not done with sufficient refinement to determine the exact position in a given place of the scale. The distribution of the families in terms of the four places of locality rating is as follows:

Nationality		I.	II.	III.	IV.
Canadian Homes, No.	91	2	31	51	7
Canadian Homes Percentage		2	34.1	56	7.7
British Homes, No.	120	2	27	68	23
British Homes Percentage		1.65	22.5	56.65	19.2
Foreign Homes, No	72	1	7	39	25
Foreign Homes Percentage		1.38	9.72	54.2	34.7
Total No.	283	5	65	158	55
Total Percentage		1.76	23	55.8	19.44

Assuming that the technique does justice to the facts, and that the numbers are sufficient to warrant conclusions, these results would show that less than 2 per cent. of the children leaving to work live on streets and in houses ranking in the first place, comparable with the Huron Street locality from Dupont Street to Lowther Avenue; that nearly five times as many foreign children as Canadian live in communities ranking in the fourth place, on streets such as Arnold Street and in houses such as on Terauley Street; whereas an equal proportion (and more than half) of the children of each nationality belong in the third place, that is live on streets comparable with Terauley Street, and in houses such as on Sackville Street between Gerrard and Dundas Streets, etc. Photographs of the norms facilitate comparisons, but first-hand knowledge of them is indispensable.

The advantages and limitations of the method in general and for such a survey as the present may be thus summarized:

1. It permits the inclusion of all essential points and the exclusion of others.

2. Consequently it improves the quality of case work by (a) preventing distraction upon non-essentials and (b) through its metrical requirement, compelling close concentration upon each important point.

3. It expedites and simplifies enquiry by giving a definite point of view and at the same time permits the detection of any tendency toward mechanical procedure or vague guessing on the part of the worker.

4. Its early use in an enquiry reduces the breaking-in period of workers for which reason it might prove helpful in training investigators.

5. No rating scale is an absolute measure; its application is local and its results are intelligible only to those who understand and accept the composition of the scale. Nevertheless because it is a constructed scale its reconstruction may readily be affected as circumstances may require.

6. Although a scale is relative and particular, it is not as particular as the individual instance; on the contrary it makes possible quantitative comparison of extremely complex phenomena.

IV. THE INDUSTRIAL RECORD

Surveys of personnel in industry are usually planned either upon the longitudinal or the cross-section basis. In principle the latter means the taking of a census, that is, in the case of juveniles, finding particulars about their actual employment, the point of contact being the places they are employed. A difficulty in this way of approach is to take adequate account of the job adjustment process which characterizes the early experience of the majority of working children. In the longitudinal plan the aim is to trace the full industrial record of selected cases to discover what measures would best promote adjustment. Here the point of contact is primarily the worker and the difficulty is to obtain accurate information upon the details of his record. Both methods might with propriety be combined, but the longitudinal has in the main been followed as being best adapted to the purpose of this enquiry.

Although a good beginning in the keeping of continuous records has been made by the Board of Education, no attempt has as yet been made to carry this beyond the school.[1] Under these circumstances the industrial field work was in the nature of an experiment. As it turned out the data in a few cases had to be omitted as unreliable and in nearly 30 per cent. of

[1]In Cincinnati a follow up record was obtainable directly from work certificates which are issued to children through the Superintendent of Schools. The Child Labor Law of Ohio 1910 required that a child shall be at least 14 years of age and shall have completed the 5th grade (8 in all) in public school before he is allowed to begin work. (A later law in 1913 raised the age to 16 yrs. for girls and 15 for boys and the minimum grade was raised proportionately.) Each work certificate had to be issued to a named employer on the authority of a contract signed by the employer. When the child changed his position his certificate was returned to the central office by his previous employer and re-issued from there upon a new contract. The work certificate therefore provided for close supervision of working children until their 16th birthday after which it was not required. H. T. Wooley, *op.. cit.* p. 60.

the cases it remained incomplete in one particular or another. Such a reduction in numbers, of course, would make a larger enquiry desirable. Reference has been made in the plan of enquiry, p. 13, to dependence upon parents and children as the source of industrial information. Their report was regularly given willingly and, we believe, without reservation. In the case of complicated histories it was often found that details regarding the place, pay and period of the numerous early engagements could not be accurately recalled. These and certain problem cases comprised the majority of omissions. Unfortunately this meant ignoring important aspects of the juvenile employment situation, for example, the amount and distribution of lost time.

Findings are reported upon the following five points: How children get work and the length of time that jobs are held; the jobs that children do; the wages they receive; the reasons they change jobs; the relation of age and of school standing to earnings.

Table X shows (1) the placement (2) the turnover (3) the job tenure in 200 cases more or less (Appendix G, p. 119). The findings for Canadian and British children of each sex were grouped as it was felt that in the eyes of employers this distinction was not as important as between them and foreign children. Under (1), the way first jobs were secured by 221 children, it is seen that nearly half (43 per cent.) found work by direct enquiry, i.e. without guidance or recommendation from any outside source. Over one-third were first placed through working friends or relatives. This, of course, usually meant that the child commenced where his friend happened to be working or to be known rather than in a place for which he might be best suited. About one-sixth found work through newspaper advertisements, and a few (chiefly girls) through the efforts of Public School or Sunday School teachers. The latter small percentage must not be interpreted as an entire lack of interest on the part of teachers in this matter which is really outside their prescribed duties. Many contemporary instances were discovered of teachers and principals trying

unofficially to place their boys and girls who were dropping out. On the face of the large problem, the numbers so placed are small, but this willingness of teachers to assist, if properly co-ordinated, could be of the utmost importance in a programme of juvenile placement as they know the children thoroughly from several points of view.

In regard to the number of jobs held by children and the average time per job, it must be borne in mind that the children here reported dropped out at different times during the school-year 1918-19 and that their records up to August 1920 are therefore not strictly comparable. Moreover no account was taken of the variations in dropping out in different months of the school year or of certain temporary seasonal jobs (e.g. calendar-making etc.) which affect the stability in job tenure of working children. Such factors, which would deserve full consideration in a more thorough enquiry, do not materially affect the relative significance of our results.

Thus from Table X (2) 40 per cent. of the children have not changed from their first position, the girls being more stable than the boys; and three-fourths of the girls (but only two-thirds of the boys) have not held more than two jobs. On the other hand, upwards of one-quarter of the children who left school to work have drifted about to the distress of their parents and often to their own detriment. The latter group is a problem, if not a liability, for industry,[1] and special consideration should be taken of them in an employment policy. Further investigation of this group is needed before suggestions should be made. Not a few of these children, we believe, are as capable as their more stable fellows, but through failure of their earlier training at home and in school

[1]Although a certain amount of this instability is undoubtedly due to the exigencies of industrial conditions it may in part be augmented by practices which could be controlled. Enquiry might be made, for instance, regarding how far the use of unclassified advertisements for juvenile help tempts the more unstable children to leave without knowing either their prospects or their own capacity in the new position that may be open for them.

to establish in them habits of discipline, courtesy, punctuality and other industrial virtues, they have to learn these lessons through hard experience. Having learned that industry demands fair play and can be no respecter of persons they become satisfactory employees. With others of this group the trouble is undoubtedly more deeply seated. Enquiry should be made as to how far these repeaters in industry were also repeaters in school, with due allowance, of course, for extenuating circumstances. If the percentage were high the relation could scarcely be assumed a coincidence but rather the outcome of a constitutional basis in the individual. In the interests of industry and of the individual the advice of an expert in mental hygiene should be available for all such children continuously through school and afterwards in order that their constitutional disability be not aggravated by conditions which prevent proper adjustment.

The girls on the average held only 1.98 jobs and the boys 2.28[1] from which one would expect that girls held their jobs longer or else experienced more unemployment. That the former is the case is not evident from the average tenure of girls (Table X, 3) which is slightly lower than for boys, but it is shown by the medians, i.e. the more stable half of the girls held their positions for practically 14 months or more whereas the median for boys is only 12 months. In a particular business one sex usually predominates among juvenile employees and while individual employers have commented upon the greater instability of their juvenile help during the past three or four years they have not remarked on a sex differ-

[1]These figures correspond very closely with those on job tenure obtained by R. M. Woodbury from the work certificate records of 7147 children who held 14,826 jobs during their first 21 months employment in the industries of Connecticut during 1914, viz. 2.2 jobs for boys and 1.9 for girls. Woodbury also reports 30 per cent. of Connecticut children as not changing their first jobs for this period, one-third as changing within 3 months, and one-sixth within one month. (*Industrial Instability of Child Workers—a study of employment certificate records in Connecticut*, R. M. Woodbury. Children's Bureau, U.S. Dept. of Labor, 1920, pp. 22, 36).

ence in this regard. Such points, however, should be fully appreciated by public officials in charge of employment policy.

From the foregoing, certain difficulties will be appreciated in the reporting of what work children do. Should the data be classified in terms of the jobs first held, longest held, last held or best paid, etc? Any such cross-section of the situation does not give a picture of the job adjustment process which is the crux of the question. As at present no uniform principle of guidance is in operation in Toronto, it was thought worth while to know what distribution of children among jobs results at the first throw of the dice and also what tendencies characterize the adjustments that follow in the course of the workers' experience.[1] For this reason first jobs were reported separately from subsequent jobs, but no distinction was made among the latter.

A second difficulty is presented in the classification of jobs themselves. A proper solution would require intimate knowledge of the technique of industry. The classification adopted was arbitrary and not entirely free from cross-division. All technical jobs, both hand work and machine work, in factories and shops were grouped with the exception of the printing business, which stands apart as a trade in the eyes of many children. Messenger and errand jobs, both out-of-doors and indoors, were grouped but were kept distinct from driving a wagon and from peddling. In other cases the unit of business rather than the nature of the work was accepted, e.g. department stores, offices, restaurants, etc.; in only some cases is this justifiable on the ground of a line of promotion which the business offers.

On this basis of classification under twenty types of employment, Table XI shows the distribution of 244 first jobs among 130 boys and 114 girls, with the foreign children distinguished from others; also the distribution of 265 subsequent jobs held by many of these children and a few others whose first jobs were not ascertained. The jobs are arranged in order of total incidence and the percentage of holdings for

[1]Illustrative instances are given in Appendix D.

each sex and for all children is shown at the right (Appendix G, p. 121).

The more important employments which respectively account for 5 per cent. or upwards of the first or subsequent jobs of all children are as follows:

Employment.	Percentage of First Jobs.	Percentage of Subsequent Jobs.
Factory and shop	44.5	53.3
Messenger and errand	9.4	9.5
Departmental stores	12.2	6.4
Offices	11.3	6.1
Small retail	4.5	6.1
Miscellaneous	18.1	18.6

Differences between industrial communities deserve close study in order that the employment policy may meet the needs of the local situation. From the present data for Toronto 44.5 per cent. of the first jobs of all children were in factories and shops, and the tendency to move in this direction from other jobs is seen in the increased percentage (55.3) of all subsequent jobs held. A larger proportion of girls than of boys entered factories and shops to begin with and a considerably larger proportion gravitated there. In messenger and errand work, the percentage remained constant between the number beginning in it and the number who subsequently tried it, the latter possibly representing children who had first tried more technical work without success or who preferred to work out-of-doors. In departmental stores and in offices there was a falling off of nearly one-half in the number who tried such work as a later choice, one reason probably being that, though more desirable, the work is less remunerative than that in factories and shops. There is a slight increase of later choices for work in small retail establishments and in telephone operating.

Such indications as the above, although not acceptable as final conclusions unless substantiated by a larger enquiry, show the ground work upon which a local employment policy must be built. Nearly half of the children who leave school

to work commence in factories and shops and this proportion is increased through those who enter after a few months' experience elsewhere. About one-third commence in messenger work, departmental stores or offices and a considerable portion of these shortly leave. The remaining one-sixth are scattered over a dozen or more types of employment, a few of which lead to definite trades or at least to satisfactory employment. On the whole, therefore, the problem in regard to more than five-sixths of these children is so to deal with them before they drop out of school and afterwards that they may be carried over and given as good a start as possible in becoming skilled operatives or in a few cases executives or salesmen.

The wide diversity of factory and shop jobs into which children enter is shown in Table XII (Appendix G, p. 122). Disregarding differences between nationalities and sexes, and roughly classifying the trades, one finds the following percentage distribution in placement for the cases examined: metal trades 21, food products 15, clothing and sewing 14, printing and binding 13, paper boxes and bags 7, miscellaneous 30. These proportions are to a considerable extent dependent upon our selection of cases and would not hold for the entire group of children who annually commence work in factories.[1] Furthermore, the forty or more types of industry represented in the placement of these 248 cases are by no means exhaustive of the local field for juvenile factory workers. The magnitude of any attempt to furnish effective technical training for these children as a whole before they leave school, such as would qualify them in any special way for the particular work in which they will first or finally engage, may therefore be appreciated. On the other hand, remembering the kind and

[1]The percentages in Table XII show little or no agreement with the percentage of children under 16 years employed in specified industries in Ontario in 1917 as reported in "Vocational opportunities in the Industries of Ontario," Bulletin No. 1, Ontario Department of Labour and Health, 1920 p. 26. Such a dissimilarity between the industrial situation throughout the province as compared, for example, with Toronto would emphasize the need of local differences in regard to juvenile employment policy.

amount of public school education which they possess on leaving to work, it may perhaps be expected that their advancement will depend more on what they can do with their hands than their heads. For both of these reasons it is important for their success that these children have a proper interest and attitude in undertaking whatever job comes to their hand. This initial contribution we feel a qualified employment official might make in connection with public schools.

An attempt was made to discover the job preferences of children (1) as to whether those who had held but one liked it, (2) as to which job was preferred by children who had held more than one, (3) as to what they would like to do best of all if they had their choice. The results are not reported, first, because it was found that children have little skill in analyzing their experience and determining what elements they like or dislike, or at least they are too inarticulate in expressing their point of view for it to be discovered without the help of leading questions; and secondly, because when reasons for their professed preference were given they rarely concerned the nature of the job in question or its prospects, but were usually either in terms of the immediate wage or some irrelevant and often trivial consideration. On the whole those who had held several jobs were less definite in their judgments than those who had remained more firmly established. This was so regularly the case as to raise a doubt whether it is psychologically sound in dealing with children to put too great dependence upon job sampling as a means of determining what they prefer to do. Our impression from this group of children was that, other things being reasonably equal, the degree of success and accomplishment the child felt in his work rather than the nature of the work itself was the major element that made for satisfaction.

Information concerning the weekly wages of children was obtained upon three points, viz. the first wage, the best wage and the average wage since first obtaining work. The best wage, which was not always the last wage even when there

had been no change of job,[1] was the easiest to ascertain; 221 cases are reported. The first wage was omitted in instances where the report for various reasons was thought unreliable; 200 cases are included. The average weekly wage was the most difficult to obtain as it involved the rate and length of tenure for each job that the child had held. Not having access to wage or time sheets there was no alternative but to omit all doubtful cases which were usually those with the poorest work record. For this reason the 120 instances reported are among those who made the best showing from the point of view of total earnings. In these cases the data from which the averages were calculated are believed to be correct within from 1 to 2 per cent.

The distribution of the above wages by unit amounts and arranged by sexes and nationalities, with the Canadian and British children combined, is shown in Table XIII (Appendix G, p. 123). The total averages are calculated from the specific data, the medians are from the table. A few cases which were found of children working for their parents without pay are noted.

The average first wage per week for all children was $8.07, average best wage $11.89, and the grand average of weekly earnings $9.11. The omissions that have been referred to would tend slightly to lower these figures, particularly the last item, but it is difficult to estimate the amount. The total averages for the first, best and average weekly wages of all children combined were slightly lower than the corresponding medians. In the case of first wage and average weekly wage the girls as a whole made a better showing than the boys.

[1] A case will illustrate: S. C. a Polish girl, left school during her 14th year, from Senior II grade. Alert, motor type, nimble fingers, willing to apply herself to the limit. Began work at $7 trimming dolls' hair. Four months later raised to $8; one month later to $10, a month after that to $11. Spent two weeks on trial in piece work at $15. For a few weeks earned from $20 to $25 on piece work. Found this too tiring. Changed back to time work at 35c an hour. Shortly afterwards raised to 40c. Now getting $17.50 per week, and does occasional voluntary spells of overtime.

This is probably due in part to their early entry into factories and shops. On the other hand in regard to best wage the boys on the whole had almost overtaken the girls. These facts suggest that the girls who leave school to work are more quickly adaptable to their maximum earning power than are boys, or in other words, that while the incubation period for boy workers is longer they develop farther.[1]

Generalizations regarding wages are hazardous. The high wages received by some boys did not indicate necessarily that they were in line for continued rapid advancement but rather that they had taken on a grown man's work (e.g. as teamster) on reaching 16 years of age. In the group examined, piece-work was more common among girls than boys, which partly accounts for their relatively good showing during the first year or two at work. On the whole the piece-work plan was not as popular as the time basis except with the few who were physically and mentally able to stand the pace. Poor physical development, under-nourishment and mental slowness were felt to be important factors in determining the attitude of many of the children upon this point. This being the case, it is in the interests of public health that a means be found of carrying forward the continuous health record of children now in vogue in the schools, after they have dropped out to work.

The reasons assigned by children for leaving jobs are coloured by a multitude of circumstances. The difference between a reason and an excuse is often not sharply drawn by children, and many reasons for leaving jobs are tantamount to reasons for taking other jobs. Thus dissatisfaction with pay may mean that the child feels he is under-paid for the service

[1]The final result of this process is shown in Table 3, *Vocational Opportunities in the Industries of Ontario* (op. cit.), p. 7, from the weekly wages of 11,388 male and 7,863 female factory yworkers other than executives. The wage scale ranges from under $5 to over $35. For men the average and the median wage, as calculated from this table, are $20.66 and $22.90 respectively, and for women $11.26 and $12.13 respectively. The latter figures for all women factory workers (adult and juvenile) in 1917 are slightly lower than our figures (average $11.79 and median $12.70) for juveniles only in 1920.

he is giving, or merely that a chum is getting higher pay elsewhere or the same pay for an easier job. Again his attitude on the wage question may reflect his desire to give more assistance with the family budget or merely represent his own insatiable cupidity. In cases of leaving involving grievance it is perhaps impossible accurately to estimate the unconscious amount of bias in the child's or parents' report without consultation with the employer concerned.

An arbitrary classification of reasons for leaving under fifteen headings was adopted and the distribution of 249 instances, 140 boys and 109 girls, is shown in Table XIV (Appendix G, p. 124). The following are the more important items, accounting for nearly 80 per cent. of all instances:

	P.C.		P.C.
1. Dissatisfied with pay	21.3	ditions	10.85
2. Laid off	16.1	5. Undefinable discontent	10.
3. Disliked the work or too immature	13.25	6. Trouble with the foreman	7.62
4. Unhealthy work con-			

When more than one reason was given the one most emphasized by the child was accepted. Children as a rule are reluctant to acknowledge that they were discharged,[1] and enquiry upon this point was not pressed. The majority of discharges are probably included under headings 6 and 5, and of involuntary leaving under numbers 2 and 3.

In spite of the prevailing high wages for children the pecuniary motive is the predominate cause of shifting, and the situation is aggravated by the fact that owing to the demand for juvenile labour, even the most inefficient children can often materially better themselves by starting a different job or merely by engaging with a different employer. Apparently

[1]The main reasons mentioned by a number of employers for which they have had to discharge juvenile help were, in order of frequency, that the child was slow, inadaptable, dull, disobedient, lazy, tardy, forgetful, impatient of discipline, irregular, dishonest.

One firm which had a large turnover in its girl employees, has found it advisable not to hire chums who apply together, because if one has to be discharged her chum usually goes.

it is the exception for children who frequently change to feel any scruple about using the training secured at one place to advance their status at another. Only a proper form of regulated exchange can give justice in this regard to all concerned.

The fluctuation in industrial conditions which necessitates the laying off of juvenile help is the second most important cause, numerically, of children changing their places. The disastrous effects upon children of their being regarded and dealt with as casual labour need no emphasis and happily that is not the prevailing point of view. On the other hand if the promotion policies of employers are to be given a chance to prove their worth they should not be handicapped by a leavening of unadaptable children. Children who work together are highly sensitive as a group and the indiscriminate introduction of those with an unscrupulous point of view may, in spite of disciplinary precautions, be the cause of much mischief before they can be weeded out. In other words, if the previous record of children were available to employers at the time of engagement the family life of the industry could be safeguarded.

The lack of guidance for children together with the scarcity of labour and the prospects of good pay frequently result in children attempting jobs beyond their stature, strength and skill. The time spent in such experiments is ultimately a loss and the danger to health is not inconsiderable. Owing to the small power of self-criticism in children various types of maladjustment between them and their jobs are frequently interpreted by children to the effect that the kind of work they are doing is inherently disagreeable. Genuine dislike of their work, including cases of attempting the job too young, was found to be the third most important cause of leaving.

Children are impressionable in regard to work conditions and reports upon unhealthy conditions were frequently heard, particularly as to extremes of temperature, dirt, dust and dampness. Without a report from a qualified official it cannot be assumed from this that a serious condition exists in the factories and shops where children work. Nevertheless the

fact remains that this impression on the part of juvenile employees and their families accounted for more than 10 per cent. of those leaving jobs of all kinds, and the proportion in relation to factory employees alone would be correspondingly greater. This important cause of juvenile labour turnover could be largely removed if proper steps were taken to reassure parents that their children's health is not being endangered. The parental point of view was rarely condemnation of the factory but concern regarding some weakness in the child. In the absence of medical advice of their own they preferred that the child leave rather than run any risk. Although many of the fears popularly associated with the presence of dust, humidity, etc., may be medically unwarranted, this high regard for the health of the individual child should be even more widely encouraged. Through such means knowledge and habits of personal hygiene, which is undoubtedly one of the most effective sides of public health work, may be widely and quickly disseminated. In so far therefore as adequate medical supervision can be adopted in factories it will tend through the homes to check this turnover and in fact to attract children that they may have its protection and benefits.

A considerable number of children (10 per cent.) who move about in industry do not know why they change. If pressed to say they can usually invent an excuse in the attempt to rationalize their conduct, but fundamentally they do not know. This is not a surprising state of mind in which to find many of those who are just entering the period of adolescence, but it is one that may easily lead to indulgences in the attempt to find self-expression. Without guidance and encouragement these children cannot readily find a compelling motive in their work and the danger in waiting for force of circumstances to drive them into steady employment is apparent. Several of the extreme cases are helped in a practical way by the Big Brothers and Sisters and other organizations, but to meet the needs of this group as a whole would require that in every instance of this type, a specialist in psychiatry should advise throughout the follow up period.

In regard to education and training only six children were found who had left work in order to study, two having gone back to a public school. On the other hand, twenty-eight children (19 boys and 9 girls) had attended or were attending a night-school.[1] Five other boys and two girls were definitely articled as apprentices and fourteen boys and one girl claimed to be "learning the trade" at the place where they were engaged.

The force of the wage motive among children[2] is felt not merely after they have gone to work but equally before they have dropped out of school. In discussing employment elim-

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[1]Many children who were interviewed expressed a desire to attend night-school but they, as well as their parents, were ignorant of the existing facilities. It should not be assumed that such persons are necessarily indifferent in the matter but their inclination requires encouragement by more exact information regarding the plan and arrangement of work at night-schools before action will result. From the limited range of this enquiry, knowledge of the present night-school programme appears to be exceedingly vague in the minds of those whose needs it is intended to meet. We believe that a proper plan of advertisement or publicity in the matter by the Board of Education or by other bodies interested in the education of the worker would bring a greater response than obtains at present.

[2]The objection to the wage motive is not that there is a strong desire for economic independence but rather the form that it takes. As expressed by several employers and school principals, the point of view of children in regard to wages is rarely, what am I worth? but regularly, what can I get?

A sense of responsibility in providing for the future as well as for the present should be cultivated in school but always with a proper perspective between the value of earning power as distinct from earnings. Employers frequently lament the lack of interest, particularly among their younger employees, in mutual benefit plans, etc, which are organized in industry. From our observation, while the Penny Bank seemed to be widely patronized by children attending school, few instances were found of personal bank accounts among the children who had left to work. As far as enquiry on this point extended, working children seemed on the whole to be ignorant of how their earnings were administered by their elders and in consequence earlier habits of thrift seemed in danger of being lost. On thrift and school children, see Report of the Ontario Commission on Unemployment, 1916, p. 307.

ination it has been shown that the majority of children leave as soon as the law permits without great regard for the grade they have reached. Moreover, the motives which lead to this action concern both the school work they are leaving and the paid work to which they are going. That is, rightly or wrongly, these children have the conviction that neither the grade they have reached nor their proficiency record has any direct bearing on the wage they can get outside, and consequently to spend a year or so longer in school would be, to say the least, a poor investment of time. Many teachers were met who were keenly aware of this attitude in some of their pupils and attempts were observed through skilful teaching to demonstrate to children mathematically how much they would be in pocket if they stayed longer and then earned a higher wage. Whether the wage motive can be used successfully to combat the wage motive depends, of course, upon how far the children are incorrect in their assumption that schooling for them does not count.[1]

A comparison of wages was therefore made from three points of view to determine what connection exists between the age, grade or standing of children at the time of dropping out and the wages they subsequently receive. Three age periods were selected differing by a half-year commencing from 14 years. In comparing the results of those who left from different grades, division by junior and senior grades was adopted, the age of leaving being disregarded. For proficiency in the respective grades, differences of 5 per cent. in standing were accepted, ranging from under 35 per cent. to over 80 per cent. The earnings for boys and girls were distinguished throughout. In each distribution the extremes were condensed where necessary in order to furnish significant averages. The findings appear in Table XV, parts A, B and C (Appendix G, p. 125).

[1] A few employers discriminate in wages in favour of juvenile applicants who have passed their Entrance or who have attended High School a certain time. No instances were noted of the initial wage being graded according to academic standing for those who had not completed the public school course.

In the case of age as related to earnings, complete data for the three groups, 14 to 14½ years, 14½ to 15, and 15 to 15½ were available for only 106, 17 and 18 cases respectively. The two latter groups are therefore also shown combined, giving the earnings of 35 children who left between the ages of 14½ and 15½ years. The grade of the median pupil for the younger group is Senior III and for each of the others, Junior IV.[1] From the table, part A, it is seen that while the average *first* wage for the combined older groups (35 cases) exceeds that for the younger group by over a dollar per week, i.e. $8.90 as compared with $7.62, the average *best* wage after about a year's experience is practically the same for each,[2] i.e. $11.72 as against $11.64. The older girls earned more than the younger both at the beginning and subsequently, while the older boys received a little less than the younger from the first. Whether any cumulative advantage in favour of the older children would appear in subsequent years merely on the score of experience in relation to age may well be doubted, at any rate the prospect would not be sufficiently convincing to weigh against the facts of the present as known to children who contemplate dropping out of school.

A similar absence of relation is found between earnings and either the grade left or the standing attained in school. The data for parts B and C include 174 cases (86 boys and 88 girls). It is points of psychological importance in the situation we wish to emphasize, i.e., those which are most influential with children inclined to leave school. For this reason only the best wage is reported as being the most significant in the eyes of the working child's friends at school. The average best wage per week for the 174 cases was $12.04, the boys being in excess of the girls, $12.25 as against $11.84.

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[1]The earnings of one pupil from grade V is included in each of the three groups.

[2]The local situation is not unique in showing no marked economic advantage to be gained by a longer stay in school. Cf. E. L. Talbert, Opportunities in School and Industry for Children of the Stockyard District. (Chicago) 1912 p. 54.

In respect to the wages per grade (Table XV, B), five instances of leaving from grades I and II which have a low average of $10.00 may be disregarded, as these cases are a type that does not effect emulation. Of the higher grades, those leaving from the Junior III, make the best showing, Junior IV next, and Senior IV poorest. Approximately 46 per cent. of cases were from the Third and lower grades and their average best wage just equals that for the entire group, viz. $12.04. For the period concerned in this enquiry it cannot therefore be claimed that the grade of leaving has any significant bearing upon the emolument of children.

In the absence of a continuous proficiency record the standing for the last completed term was accepted as a rough measure of mental capacity. With pupils of this type, many of whom are repeating their grades and therefore familiar with the work, such a criterion may be particularly unreliable. In part C the average earnings show considerable variation, but no significant uniformity, throughout the scale of proficiency.[1] On the whole the 20 per cent. of cases standing below the 50 per cent. mark in proficiency show an average of $12.39 as against $11.96 for the remainder. It is also noteworthy that the six children with lowest school marks (under 35 per cent) received on the average the highest wage of all the groups, $13.98. Instances of this sort, though few in number, do not escape the notice of children who are doing poorly in school, or of their parents.

From these results it cannot be assumed that elementary schooling has no relation to success in industry, but only that its influence is not apparent in a short industrial experience and under such conditions as have obtained locally during the past two years. The scarcity of labour up to the present has tempted children to be opportunists in jobs with the result that

[1]The coefficient of correlation between school marks and best wages, calculated in terms of position from the specific marks and wages of these 174 children, was barely positive in the case of boys, viz. +.003 with a probable error of .726, and was slightly negative for girls, viz. —.023, probable error .718.

neither knowledge nor skill have found their due. Under more normal circumstances a different result might be expected. Even then a considerably longer period than our industrial record covers would probably be required to reveal the advantages of education in terms of financial or other returns to the worker. Unfortunately it is the preliminary period which chiefly influences the working child's associates. In view of the whole situation we may conclude that if children are to be convinced it is worth their while to continue at school and also to do well at school, then a causal connection between school record and industrial status, which does not now exist, must be deliberately created and impressed upon them. This would be a first step in employment policy and would mean that certain aspects of a child's school record should be made to serve as a passport entitling him to favourable consideration as an employee.

To summarize the main points of the industrial record:

1. *Placement.*—Almost no well-informed guidance now exists on behalf of children who are dropping out to work. Teachers can, and we think would, assist with the school side of a continuous record which would help in placement.
2. *Turnover and Tenure.*—Sixty per cent. of working children change their places once or oftener during their first year's experience and at least a third of these do not hold any job longer than the breaking-in period. This total result represents the working out of the motives which are effective with those children at the present time. Remedies should aim at controlling all the circumstances which produce this type of response.
3. *Job Adjustment.*—Nearly half of the children commence in factories or shops and a large proportion of the remainder drift in that direction within a year. A policy for working children should therefore recognize that most of them are to be operatives. In the early stage the work-attitude is more important than job sampling in determining what children prefer to do.

4. The stability of children in employment depends upon the kinds and conditions of their work, and also upon the physical and temperamental nature of the child. In order to maintain the "child-in-his-work," as an organic unity, proper medical as well as vocational supervision is required, commencing before he leaves school and continuing afterwards.
5. High wages have tended to magnify the wage motive in the eyes of children so that receipts rather than service is their aim and the immediate wage overshadows other considerations upon which their ultimate success depends.
6. Many children dropping out of public school believe that, whatever their previous progress or record may have been, their chances outside are as good at 14 years of age as they would be at 15; so far as gross earnings are concerned this is apparently true at the present time.
7. If elementary education and those personal qualities which make for success in employees are important, one way of having these things sought after and cultivated by children in school is to institute a plan whereby evidence of their actual possession will count as a premium when the children apply for a job.

V. CONCLUSIONS AND SUGGESTIONS

From the data of the preceding sections the main conclusion we draw is that in an urban industrial centre such as Toronto the problems of juvenile employment are intimately bound up with those of the individual homes, the local school system and the organization of industry. For this reason a policy designed merely to facilitate the finding and filling of positions for juvenile workers would touch only the final phase of a situation which is being annually reproduced through antecedent circumstances. If the preventive point of view be accepted in the hope of controlling some of the factors which tend to aggravate the problem, we believe that the focal point of a policy should be placed farther back than the actual placement of a child when he leaves school to work. In order to do this it is essential as a beginning that the above institutions be brought together in the spirit of co-operation to effect some practical plan which each of them might reasonably support and which would contribute at every stage, both before the child leaves school and afterwards, toward his firm establishment in permanent work. Only the principles of such an undertaking need here be discussed and for this purpose it may be assumed that a local organization would include advisory representation of the above interests (together with such governmental bodies as are directly concerned) and that the direction would be vested in the hands of an official who would act as a local Vocational Adviser or Counsellor.

In the pre-industrial period the school holds a strategic position. Here the situation as represented in this study may broadly be outlined as follows. Each year there are eliminated from the school system two groups of pupils nearly equal in numbers (p. 32). The first is composed of those who continue or qualify to continue their formal education; the second is those who drop out from the various grades (p. 33) and go to

work. Of the latter, about one-third are constrained by circumstances of necessity which for the most part are beyond the power of a juvenile employment policy to relieve. The remaining two-thirds leave of their own volition, often at the end of a demoralizing experience in which they have lost their hold upon school life without securing any substitute which will carry them forward. Prominent among this group are those who are over-age or who repeat grades through the system.

Underneath this situation lies the fundamental fact of the great differences in native ability and in school aptitude which characterize the children of any school system. For those who tend to fall by the way in the educative process the result is not merely failure to master the basic subjects of an elementary education, but the formation of habits and attitudes which tend to hamper their success in the sterner school of industry. While the needs of some of these pupils may be met through the organization of special schools or classes, such measures, admirable as they are, cannot cope with the physical magnitude of the problem which extends throughout the system[1] and relates to such a large portion of those who are leaving.

A first consideration, therefore, in order that the nature of the problem may be fully appreciated before remedies are attempted, would be to appraise accurately the degrees of educational potentiality in *all* children who are moving through the system. Can the present means of doing this be supplemented? With the regular practice of having prescribed limits of school work to be mastered in each grade it is not difficult for teachers to recognize the relative proficiency of pupils in a given grade, but it is less easy to compare in terms of proficiency in curriculum subjects the capacity of pupils

[1]According to A.D.P. cards in 1918, which represented only two-thirds of the total elimination and which failed to assign the reason for leaving in 10 per cent. of cases, pupils were reported as leaving to work from all but 4 of the 81 schools whose returns were examined, these 4 being small outlying schools. The amount of work elimination, of course, varies greatly in different localities.

who are in different grades and in different schools. For this reason an objective type of measurement which could be applied longitudinally through the system would be a valuable adjunct to the criteria of ability which now exist.

Three means which have been found useful to this end and which might be more extensively applied are: 1. Group psychological tests of the Otis or the National type. These can be given to large numbers at a minimum cost in time and money and serve to reveal the degree of intellectual capacity of the school population irrespective of age or grade. 2. Individual psychological tests of the Terman type with which the group tests may be supplemented as occasion requires. 3. Consultation between principals and school physicians, particularly regarding pupils with whom the difficulty is one of adjustment rather than of capacity.

If this educational stock-taking could be carried out an additional basis would be given for the selection of superior children (p. 21) who might safely be allowed to skip an occasional grade to their own advantage and to the relief of points of heavy enrolment in the system. It would also assist in the early diagnosis of those who will eventually leave to work chiefly because of their indifferent success in school. Instead of waiting until repeated failure had done its work and roused the desire to leave, early recognition of such pupils would permit of a constructive policy being followed on their behalf. Apart from segregation or the introduction of special instruction, which might not be practicable for the large numbers concerned, much might be accomplished through the co-operative efforts of principals and a vocational adviser in the schools. Putting squarely before these children the exacting requirements (p. 59) which success in industry demands, by one directly in touch with that field and preparing the way for them, would forestall to some extent the present tendency toward a slacking off in effort by these scholars, which otherwise soon becomes a contributory factor to their failure in school. On the positive side this practical outlook on their future would tend to strengthen in children those habits and

convictions which later will stand them in good stead. It might also enlist their active support of the efforts of the adviser through home contacts to create a more appreciative attitude in parents regarding the connection between school and work.

A second consideration in regard to the place of the employment group in public schools, particularly from the standpoint of administration, is the need of compiling additional educational standards. In order to gauge the standing of any particular group of pupils and especially to recognize the effects of any remedial measures that may be attempted, the norm for the whole system on the point in question should be known.. Proficiency in special subjects and in all subjects combined, the amount and reasons of absence (e.g. terminal irregularity), repetition of grades, the racial composition of the entire enrolment have been discussed (pp. 39-45) in connection with employment elimination, but the norms for these are not yet ascertained. Upon all such points differences between the sexes, different nationalities, different school communities, different grades, etc., would assist toward a more accurate understanding of the employment problem. These are matters of educational research in which the University and organizations such as the National Committee for Mental Hygiene might with propriety assist. If carefully planned, this work could steadily progress with little additional outlay.

A third point of major importance is the matter of continuous individual records. This is already well in hand in the schools. In the further expansion of the present records the temptation to burden them with meticulous detail should be tempered by the practical test of utility. In deciding upon the data to be tabulated it should be borne in mind that the value of a continuous record is not less in the case of those who are continuing their education than in those who are leaving permanently from the elementary schools. Broadly speaking the contribution in biographical records which the public schools can make toward personnel work is along three main lines, (1) academic proficiency and intellectual capacity, (2)

physical condition and general health, (3) personal qualities and traits which make for adaptability and success in the various walks of life.

In each case the usefulness of the record depends chiefly upon the accurate picture it presents of the general tendency toward improvement or the reverse through the school career of the pupil. Secondly, as such records are necessarily technical in character, their value will be largely lost if they cannot be concisely summarized in a form that may be readily understood by those who are subsequently to make use of them. On both of these points the principle of the rating scale can be used to advantage.

Full provision is now made on the A.D.P. cards for recording the detail of school proficiency, but the data as there reported would have to be considerably condensed and simplified before being incorporated in a pupil's record that might serve as a guide to employers. The health record on the A.D.P. card is also highly technical and complex. It may be assumed that the Department of Health employs highly proficient nurses for the exacting work in schools and for their use further abbreviation of terminology in reporting professional information could possibly be adopted without inconvenience. The addition to the present form of a non-technical summary by the school physician with general recommendations regarding types of employment or other conditions which the pupil should avoid on medical grounds,[1] would make the health record of the school period a more useful guide for parents, employers or other persons concerned with the child's well-being. This medical opinion would constitute the starting-point for a continuous health record of the child in industry.

Possibly the factor of greatest significance in the success of children at work is their own personal qualities and special abilities; and these intangible elements are also the most dif-

[1]In Britain the Factory and Workshop Act requires that a child may not be employed without a proper medical certificate of his fitness for the particular work in question. An excerpt from the regulations touching this point is given in Appendix E.

ficult to evaluate. In one sense they represent the most fundamental results of educational work; and an attempt has been made in these pages to show that the technique of education is not without influence in the nurturing of these elements which later are put to a practical test on entering employment. Usually in human relations no consideration of this important matter is taken beyond the total estimate of a person that is obtained through personal acquaintance, with the result that in school, although several teachers in turn know each pupil intimately, their information remains unrecorded. In personnel work on the contrary, analysis of those personal aptitudes and attitudes, which make for effective adjustment to the requirements of the situation, is imperative. In the case of juvenile employment it cannot be assumed that the qualities which make for success can be enumerated offhand; they must be ascertained by conference with employers of experience. Difficult though it may be in school to evaluate these qualities while they are in the making the attempt to do so in a scientific way should at least help to clarify the vision of educators regarding the more ultimate values in their work.

A continuous record including the above features and planned from the standpoint of ultimate utility, would have both an objective and reflex value. As regards the question of placement, employers who were consulted were on the whole agreed as to its value for them in determining the type of work which would hold most promise of success and advancement for the individual child; and in school, if pupils were not merely aware of the existence of such a record, but to some extent assisted its compilation, they would appreciate that the record they were making year by year was a bond which would unite their school achievement with their employment prospects. This might be supplemented, particularly in the case of pupils who were growing restive in school, with practical talks by a vocational adviser who was fully in touch with the employment situation. Such measures, we believe, would have an appreciable effect in combating the present conviction of

these pupils and their parents that neither proficiency nor conscientious effort in school work matters.

If our argument be correct that the ground-work of juvenile employment should be laid in school, the adoption of a policy upon that basis would be a large and complex undertaking, which would first require careful experiment along various lines. Eventually its application throughout the school system would undoubtedly require the services of at least one highly qualified specialist who thoroughly understood the technique of education and of industry and especially the job requirements of local employers for juveniles. The advisability of having the whole matter of placement and follow up administered by the educational authorities up to a minimum age limit[1] may be open to question. In any event the right of free contract by the individual employee and employer should not be infringed. As a next step in dealing with the local situation a round-table discussion by representatives of the various interests concerned would assist in determining points which require further investigation and in deciding upon ways and means of initiating a definite policy.

[1]For example, as at Cincinnati. See note, p. 56.

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APPENDIX A

The technique of the rating scale involves two main steps, making the scale and applying it. The first of these involves three subsidiary steps and the second two. The process may briefly be described by a hypothetical illustration from personnel work in industry.

Suppose thirty junior executives in a business are to be rated by two superintendents in their order of merit as suitable for promotion to higher executive positions. These experienced officers might each arrange the thirty juniors as they know them, without any clear idea of how they arrived at their results. If, however, their rankings did not agree, we may assume that discussion would bring to light certain traits of the men which were being used as a basis of judgment. Suppose next it were agreed that certain qualities A, B, C, D were the essential points in terms of which judgment should be made. This is the first step in making a scale, viz. *analysis of the fundamental factors.*

Qualities, however, in abstraction are more difficult to deal with than persons. A fundamental feature of rating scale practice is to circumvent this difficulty and deal only with concrete phenomena. This is done by selecting standard instances which differ quantitatively (preferably by equal amounts) in respect to the quality or element in question. Thus from all the executives a superintendent selects certain men who in his opinion possess quality A in different degrees from greatest to least.

This is the preliminary part of step two, viz. *localizing* the *factors.* In personnel work the number of persons selected in regard to any one quality is usually five, representing a highest, lowest, medium, upper intermediate and lower intermediate degree respectively. Let the persons so selected for quality A by the first officer be L, M, N, O and P. These executives then form for him a calibrated scale of A, in terms of which

he can measure this quality in the remaining men by direct comparison. This is the final part of step two, viz. *rating a quality in terms of selected instances.* It is not necessary that each officer select the same persons for his A scale, but only that he select men who represent a uniform gradation from greatest to lowest. In a similar way we may suppose that each officer compiles a separate scale of persons for each of the qualities A, B, C and D to be estimated. His four scales may include the same persons or entirely different persons.

Finally let it be agreed that the qualities A, B, C and D are not of equal importance. Proper allowance for this may be made by assigning appropriate numerical values to the scales, and these also serve to calibrate each scale as finely as is required. For simplicity values may be given to the respective qualities which total 100 or which may easily be reduced to that basis. This is the third step in making the scale, viz. *weighting the factors.*

The application is simpler than the construction of the scales. An officer considers executive X in relation to his scale of executives L, M, N, O, P and equates him, for example, with M in respect to quality A. If, however, X is considered slightly superior to M, though not equal to L, allowance is made in his score. Supposing the values assigned in scale A are: L 15, M 12 etc. to P 3, the superiority of X to M then entitles him to a score of 13 or perhaps 14. The scale of a more important quality, on the other hand, might be assigned values from 40 as highest to 5 as lowest. Executive X is thus measured as an individual in terms of each scale of individuals. This is the first step in applying the rating scale.

Lastly, the scores of X in each scale are summed, and the result, expressed to a common basis, e.g. 100, gives his final rating in numerical form. When this is done by each officer for all the executives, including those used in each of his scales, if there is then disagreement regarding the ranking of any of the men, the point of difference as well as its amount can be immediately found from the individual scores and a proper adjustment made.

APPENDIX B

Rating Scale for Localities of Working Children's Homes

(A locality is the district considered socially homogeneous from the point of view of the investigator, and should be defined by street boundaries.)

A. Physical features of Streets

(a) Width for air and privacy.
Condition of roadway and walks.
Amount and kind of traffic—hazards and noise.
Lighting provision and convenience to cars. 50

(b) Grass frontage and shade trees.
Garbage deposit and cleanliness of street and lanes.
Unsightly poles, wires, fences, dumps, vacant lots and buildings; compensated by parks or playgrounds 30

(c) Not an excess of shops or factories in locality.
Freedom from undesirable businesses — stables, public garages, wood and coal yards, stockyards, railways, smells and smoke 20

4-place Scale		Key Street.	From	To	a.	b.	c.	Score of Key.
1. 100-85	eg.	Huron	Dupont	Lowther	50	30	20	100
2. 84-65	eg.	Huron	Bloor	College	45	25	10	80
3. 64-40	eg.	Terauley	College	Dundas	35	20	5	60
4. 39-0	eg.	Arnold	Sydenham	St. David	10	5	5	20

B. Physical features of homes and premises collectively

(a) Construction—brick, stone, stucco, frame.
Size—3, 2, 1½, 1 storey; cf. density of population.
Repair of exterior, woodwork, paint, roof, glass.
Spacing—detached, semi-detached, terrace, open spaces.
Assessment ratio of houses to land—stability of tenure 60

(b) Average ratio of window space to wall space.
Average ratio of building area to lot area.
Use made of rear yards—gardening, storage. 30

(c) Attention to flowers, curtains, grass, steps 10

	4-place Scale		Key Street.	From	To	a.	b.	c.	Score of Key.
1.	100-85	eg.	Huron	Dupont	Lowther	55	30	10	95
2.	84-65	eg.	Huron	Bloor	College	45	25	5	75
3.	64-40	eg.	Sackville	Gerrard	Dundas	32	15	3	50
4.	39-0	eg.	Terauley	College	Dundas	15	10	0	25

C. Social morale of locality

Estimated from observation and from the consensus of opinion obtained from qualified officials of Police, Parks, Health Department; School Board; Public Library; Social and Church Organizations. Due allowance for racial solidarity.

Most favourable report counts plus 20; most unfavourable minus 20; otherwise a suitable proportion of these scores respectively ..... ± 20

Final rating on basis of 100, i.e. sum of A, B and C divided by 2.

APPENDIX C

Rating Scale for a Working Child's Home

A. **Premises as though vacated—rated in relation to its locality**

Size of house and type of construction.
Repair, substantial or ramshackle.
Relative assessment ratio of buildings to land.
Spacing of buildings; window and land area ratios.
Served by lane or driveway 50

B. **Occupancy**

Overcrowding and multiple residence.
Good housekeeping.
Good furnishings.
Relative social standard, comfort, thrift, prosperity, family ambitions, solidarity with interests of the locality 50

C. **Home atmosphere as conducive to success of children at school and at work**

Allow plus or minus 15 or suitable proportion thereof ± 15

Final score on basis of 100, i.e. sum of A, B and C.

The home rating should be quoted in conjunction with the locality rating,[1] each being on the basis of 100. The locality rating may regularly be given first place, e.g. 70-75, which means a home rated at 75 in a locality falling within the second place of the scale.

[1]Many circumstances require that this intimate relation must not be overlooked. Families with a high rating in a poor locality frequently aim at improving their position and move to a better neighbourhood. The expense involved may necessitate their taking a relatively inferior house, but the importance of this is outweighed by the motive for moving. Thus a 45-80 rating would probably be inferior to a 75-50 rating. Each instance must, of course, be considered with respect to its bearing upon the child. If the child is taken from school in order that his earnings may facilitate the family's removal to a better locality the wisdom of the move as being in the child's interest might be questioned.

APPENDIX D

The following four cases from those reported by Mrs. W. H. Becker may serve to illustrate some of the types of children who are leaving school and the large element of chance that now marks their industrial course, owing to the present lack of guidance by either parents or officials. It would seem unnecessary to comment on the waste that is involved both for the children and their employers.

Case I. X lives with his parents and younger brother and sister in an inferior locality that could not be rated above 35. Their home is both comfortable and attractive in appearance and the standards of living somewhat superior to those of other Canadian families in the neighbourhood. The father is a silver polisher. The second boy, thirteen years of age, and the little girl are very bright children, normal in school work and in the home. The mother has trained the children almost exclusively as the father is not strong physically and has been unequal to the task of "lambasting" X as often as he needed it.

She has had to go to the Juvenile Court several times, to her lasting disgrace, when X has been gathered in with the "bunch" for such offences as breaking windows, throwing stones, noises in the picture shows, etc. He is not a leader, and says that he has not done the things that get him into trouble, having merely been with those who do. He is quite popular with the boys and girls in the neighbourhood, the younger of whom foregather at a near-by playground. His mother buys him good clothes and he keeps himself neat and clean. Though small for his age, he is a fine, bright looking boy.

X did not like school, and made no progress as he would not, or could not stick to anything. Lazy and erratic, he not only wasted his own time but annoyed those pupils who want-

ed to work. He left school as soon as the law allowed, but even before that time he had often been absent through truancy. He had reached the Junior III grade, but reads poorly and writes and spells worse.

He faithfully promised to go to night school, but after about three nights he left off, hiding his books and going to amuse himself on the street. He lied, smoked, and took money from his mother but does not seem to have pilfered in any of the places where he worked though he had the opportunity. Delivery men have often trusted him with C. O. D. orders and he has frequently handled sums of about $100.00.

A neighbouring church, much concerned over the fact that nearly all the boys in the district were of the same idle, mischievous, rowdyish character, formed a club of them and tried to switch them on to the right track. X with some others joined the church, but this has made no apparent change for the better and the boys have all dropped away again. His mother has been advised to move away from the neighbourhood, but says that she can't find a house at the price they can pay in any better locality.

X has had so many jobs that the family could not remember them all. One of his first was in a printing establishment. He did not like the close application and left after a short term. He moved to another printing firm, but again did not like the work and left. He next tried an electrical company and stayed for several weeks at a wage of $12.00. The work here he found not too bad, but the holiday spirit seizing him he went off to Hamilton one afternoon with one of the truck drivers and was promptly fired on his return. After some time he got a job with a firm making parts of phonographs. Here he worked from five to six weeks at a wage of $13.00. All hands were then laid off owing to a slack time and X took a job delivering for a grocery at $6.00 a week. He held this job for some time as a stop-gap till the horse shied injuring its knees. X was probably not to blame but the grocer said he could take no chance of ruining the horse, and X was at large again. At present he is promised work with another

phonograph company as soon as the boys employed during the summer go back to school.

X says he would like outside work driving a delivery waggon or truck. Though he has had little chance to learn, he can drive a motor. He is passionately fond of horses and cars, in short, of anything that goes.

The mother is greatly worried over his failure at school and at work. The money is less important than that he should learn to keep a job. Examined at the psychiatrical clinic he was pronounced free from mental defect. The mother is most anxious for some sort of vocational guidance for him that he may find work for which he is suited and settle down.

Case II. Y, a girl of fifteen, lives with her parents, who came to Canada from England sixteen years ago. She is the eldest of three children, all bright, well-trained and likeable. Mrs. ——— is very intelligent and a good mother. They live in a roomy, well built old house which has seen better days when the neighbourhood in which they live was a smart residential section (now to be rated in our second grade). A large yard with lawn and garden furnishes a pleasant playground for the younger children. The house itself is much more than a place to eat and sleep in. The large drawing room with worn but good furniture, the piano dripping music sheets, is plainly the centre of enjoyment in the life of this family. Here the children may always bring their friends. Y's chief recreation is music, with a picture show once a week.

Y liked school very well and got on well with her teachers. She left school at fourteen, when in the Junior IV class, not because of absolute necessity but because it had been customary in her family for factory operatives to go to work at that age. The addition to the family income was, of course, acceptable.

Mrs. ——— having heard through a friend of an opening in a shoe factory took Y to apply for the position. She was taken on as messenger at $5.00 a week. As she was not receiving any training for a better position nor learning any-

thing in a general way she left at the end of three weeks. She stayed at home for about a month, helping her mother and watching for a position.

Through a school friend she heard of an opening at a candy factory and secured a position there. She was set to carrying trays to and from the chocolate dippers at an initial wage of $9.00 a week. Her wages have been increased regularly without asking until, after ten months, she is now getting $14.00 a week. She hopes to stay with this firm as she thinks there is hope of advancement.

She greatly enjoys the comfortable rest room where the girls sing and play at noon. She goes home happy and elated, instead of being too exhausted even for pleasure which she reports to be the case with some of her friends. The Y. W. C. A. Industrial Club is also an attraction for her with its opportunities for physical culture.

The pay envelope is always given to her mother unopened; Y receives back one dollar for spending money and enough for her lunches. The remainder is used for buying her clothes, and if there is anything over it goes into the family exchequer.

Y is quite interested in the card that comes in each pay envelope. It is a bright terse statement of some phase of business efficiency, expressed in a way that appeals even to the uneducated. The many advantages offered by this firm such as the rest room mentioned above, the scheme of life insurance for all workers over three months in their employ, the services of a nurse when needed, etc., have all contributed to make Y stable and contented in her job.

Case III. Z, aged fifteen, is the older of two children, her younger brother aged eleven being still at school. Her father has a cartage business. The mother keeps house for the family and a number of boarders, some of whom are employed as drivers by Z's father. The parents are bright, sensible people of limited academic opportunities which the mother greatly regrets.

The home atmosphere is good though the house and its furnishings are out of repair. The housekeeping, while not of the neatest, is not unsanitary. The locality is very noisy, the house being on a car line with also a steady stream of traffic, much of it heavy. This was once a popular residential district, now given over to boarding houses, interspersed at intervals with steadily encroaching businesses, small and large. There is little loitering on the street, both adults and children seeming on business intent.

Z never got on well at school. She liked neither lessons nor teachers—with the exception of one. She was not good in arithmetic, poor in reading, worse in spelling but a fairly good writer. Always large for her age, she was humiliated by constantly appearing an awkward and backward big girl among a lot of smaller children. She felt that the teachers "picked on" her, and were vexed that she did not know more than the smaller children. According to her mother, the teacher advised that Z's time was wasted in school. When in the Junior III class her fourteenth birthday arrived and she left.

Her failure to succeed in any branch of school work is surprising as she seems bright and quick in conversation, obedient to authority and perfectly normal and sensible in her point of view. She has grown to 5 ft. 9 inches while still very young, and as a result she is not very strong physically. She does housework well, and manages telephone orders for her father very nicely. She can make and trim hats quickly and tastefully. Her mother does not want her to stay at home, though she needs help, but wants her to have a trade or business training so that she may be able to earn her living in a pleasanter and easier way than "slaveying" for boarders.

She was at home for several months after leaving school and helped with the housework though not enthusiastically. Her first industrial adventure was in a candy factory not far from home. Here she stayed four months wrapping chocolate bars, work for which she was paid $10.00 a week. The factory was new, clean, airy, all the conditions excellent, but Z left because of poor health, the result, her mother says, of eating too much candy.

After a rest at home she tried millinery for which she has a decided talent. Her first position was with Madame A, with whom she remained six weeks. Her wages were raised from $6.00 to $9.00 during this time, and she was so skilful that she soon was given expensive hats to trim. She left because Madame yelled and swore at the workers so shockingly that Z's nerves gave out. After a week's rest she got work in another millinery establishment. Here she remained only one week as the wages were only $6.00 with no prospect of increase.

Her next position was in a store. She remained six weeks in charge of selling in the millinery department at a weekly wage of $10.00, but her health failed through being constantly on her feet, and she retired to the country for a six weeks' rest.

She has just come back feeling fit for another adventure in the business world. What to take up that will suit her physical and mental attainments is the problem. Though a natural milliner, the commercial season is too short for her to depend on it and make it her trade. It has been suggested that she might do well as a filing clerk and at simple typewriting, so with the assistance of a kindly boarder she gives several hours a day to learning typing, studying spelling and copying business forms. As she is the type of girl who can obey orders and carry out routine work well, and as she is likewise faithful and industrious, she has a fair prospect of success up to the point where her limited general education closes the door to further progress on those lines. Z is perfectly frank and outspoken about her failures and most anxious to do her share if someone would help her to choose the right course.

Case IV. W, aged fifteen, left school when his father was killed in action overseas. Two brothers, 9 and 13 years old at present, are still in school. The thirteen year old has organic heart trouble and needs special care. The mother, a bright, vigorous young woman, works in a brass works at $15.00 a week. She has bought a six-roomed house which they are

paying for at the rate of $40.00 a month. Saturdays and evenings they work at painting, papering, etc., to make the house comfortable and attractive.

W was in Junior III grade when he left school. His teacher says that he is stubborn, hot-tempered and rash, but that he works well at some times and some things.

His experience since leaving school has made him an expert in job sampling. He did not find a job for several weeks, then through another boy he got work some distance from home at a shipyard where a number of boys were employed passing rivets to workmen. The wages were to be $12.00 a week but were docked for rainy weather and amounted only to $10.00. After a month he left in quest of higher wages.

Having no better job in view he went after a few days to a lumber company where he sawed boards for $8.00 a week. He did this for a month, looking all the while for something better. Work can always be had here when everything else fails.

Then he worked for two months as messenger boy with a bread company at a slightly higher wage. This job was secured for him by his mother who worked there at the time.

W found his next job by applying at a varnish company where he spent a week mixing paint at $11.00 a week. W's account of what happened here is not too clear, but he says that he was ordered to stand in cold water and clean his own and another boy's paint pails. He did not know what to do, but said he could not do it or he would not get his own work finished and would get into trouble. He was told to do it or go. He went.

In answer to a sign "Boy wanted," W next got a job in a chemical manufacturing plant filling boxes. Here he received $9.80 a week but after a few days his mother took him away as he coughed and sneezed all night.

Four days were spent with a mattress company, but as he could not get the job he wanted, he again left.

He seems at last to have found suitable work with a motor company where he has stayed for six months writing orders

for tools to be given out to workmen and sometimes running messages. For this work he gets $14.40 a week. At the time of enquiry he had been laid off temporarily but expected to go back soon. He likes both the work and the foreman and is anxious to stay in this place.

W is never out of work long, his mother says, as he always hunts up a job for himself. He does not appear to be either idle or careless. He plays on a City Playground team. This winter he intends to go to a night school. He regularly gives his pay envelope to his mother who gives him back $2.00. Some of this he spends for amusement, but he also buys himself something useful, such as a cap, stockings, tie, etc. He had not wanted so many jobs, he says, but till this last one, none that he tried were right.

APPENDIX E

Excerpt from the Public General Acts of Great Britain and Ireland, 1901: *Factory and Workshop Act*

Section 62. A child under the age of twelve years must not be employed in a factory or workshop unless lawfully so employed at the commencement of this Act.

Section 63. (1) In a factory a young person under the age of sixteen years or a child must not be employed for more than seven or, if the certifying surgeon for the district resides more than three miles from the factory, thirteen work days, unless the occupier of the factory has obtained a certificate, in the prescribed form, of the fitness of the young person or child for employment in that factory.

(2) When a child becomes a young person, a fresh certificate of fitness must be obtained.

(3) The occupier shall, when required, produce to an inspector at the factory in which a young person or child is employed the certificates of fitness of that young person or child for employment.

Section 64. With respect to a certificate of fitness for employment for the purpose of this Act, the following provisions shall have effect:

(1) The certificate shall be granted by the certifying surgeon for the district.

(2) The certificate must not be granted except upon personal examination of the person named therein.

(3) A certifying surgeon shall not examine a young person or child for the purpose of the certificate or sign the certificate elsewhere than at the factory where the young person or child is or is about to be employed, unless the number of young persons and children employed in that factory is less than five or unless for some special reason allowed in writing by an inspector.

(4) The certificate must be to the effect that the certifying surgeon is satisfied, by the production of a certificate of birth or other sufficient evidence, that the person named in the certificate is of the age therein specified, and has been personally examined by him and is not incapacitated by disease or bodily infirmity for working daily for the time allowed by law in the factory named in the certificate.
(5) The certificate may be qualified by conditions as to the work on which a child or young person is fit to be employed, and if it is so qualified, the occupier shall not employ the young person or child otherwise than in accordance with the conditions.
(6) A certifying surgeon shall have the same powers as an inspector for the purpose of examining any process in which a child or young person presented to him for the grant of a certificate is proposed to be employed.
(7) All factories in the occupation of the same occupier and in the district of the same certifying surgeon, or any of them, may be named in the certificate, if the surgeon is of opinion that he can truly give the certificate for employment therein.
(8) The certificate of birth (which may be produced to a certifying surgeon) shall either be a certified copy of the entry in the register of births, kept in pursuance of the Acts relating to the registration of births, of the birth of the young person or child (whether that copy is obtained in pursuance of the Elementary Education Act, 1876, or otherwise), or be a certificate from a local authority within the meaning of the Elementary Education Act, 1876, to the effect that it appears from the returns transmitted to that authority in pursuance of the said Act by the registrar of births and deaths that the child was born at the date named in the certificate.
(9) Where the certificate is to the effect that the certifying surgeon has been satisfied of the age of a young person or child by evidence other than the production of a certificate of birth, an inspector may, by notice in writing,

annul the surgeon's certificate if he has reasonable cause to believe that the real age of the young person or child named in it is less than that mentioned in the certificate, and thereupon that certificate shall be of no avail for the purposes of the Act.

(10) Where a certifying surgeon refuses to grant a certificate for any person examined by him, he shall, when required, give in writing and sign the reasons for his refusal.

APPENDIX F

Children's replies to Questionnaire

A questionnaire touching thirty points regarding the child's experience at school and at work and his present attitude to each of these was sent to 250 children. Care was taken in arranging the circumstances in order to ascertain the value of the questionnaire method in work of this kind. An appreciative response to our interest in the child's success had been secured in the home through an earlier interview. The questionnaire was mailed to the child with a covering letter written on University stationery and a stamped addressed envelope for reply. The questions, which were designed to supplement rather than reproduce the information sought by interview, were colloquially phrased. The expectation that a questionnaire would prompt a degree of reflection in children upon some questions, which cannot be secured in an interview, was to some extent realized.

In all sixty-eight replies (27 per cent.) have been received in the course of a month. Boys and girls are about equally represented but answers from Canadian children are in the minority, i.e. 16.2 per cent. as against 47 per cent. British and 36.8 per cent. foreign. To some extent the replies probably represent extremes in success, that is, those who are smugly complacent and those who are worried about their prospects or on other grounds, and would welcome assistance. The fact that immediately following the issuing of the questionnaire there happened to be discussion in local newspapers regarding raising the age of compulsory school attendance possibly was responsible in many cases for replies being withheld. Judging from the replies received the questionnaire method alone is not adequate for the purposes of such an investigation as the present. While the information obtained was occasionally illuminating, it was frequently incomplete and sometimes inac-

curate, as checked by other sources. It is therefore felt that in dealing with juveniles this method should be used only as supplementary, if at all.

The following is an analysis of the replies upon the more significant points, arranged according to nationality and sexes:

	Boys.			Girls.			Total.
	7	17	12	4	15	13	68
	Can	Brit	For	Can	Brit	For	
1. How he got along with his school duties:							
(a) Claimed to get on well	1	4	4	1	6	5	21
(b) Claimed to get on fairly	4	7	5	2	7	5	30
(c) Had weak subjects	2	5	2	1	2	3	15
(d) Did not reply	..	1	1	..	..	..	2
							68
2. Why he left school when he did:							
(a) No choice	2	7	8	1	7	10	35
(b) Wanted to work	4	7	1	3	4	1	20
(c) Tired of school	1	2	1	..	3	..	7
(d) Couldn't pass some subject	..	..	2	..	..	1	3
(e) Illness	..	..	..	..	1	1	2
(f) Didn't reply	..	1	..	..	..	..	1
3. How he got his first job:							
(a) Hunted it up	3	11	3	2	8	3	30
(b) Friends helped	2	4	4	1	6	..	17
(c) Watched the papers	2	2	5	..	1	4	14
(d) Teachers helped	..	..	..	1	..	3	4
(e) Didn't reply	..	..	..	..	..	3	3
4. Explain if you have been badly used by anyone where you worked:							
(a) Have not	4	16	9	1	15	9	54
(b) Yes, by employer or foreman	1	1	1	..	..	1	4
(c) Yes, by employees	..	..	1	2	..	..	3
(d) Didn't reply	2	..	1	1	..	3	7
5. Do you know any firm where the boys or girls have joined together so that their leader can go to the boss about any difficulty anyone has?							
(a) Yes	1	1	..	..	..	..	2
(b) No, but would approve	3	9	5	2	9	4	34
(c) No, and disapprove	..	1	..	1	2	4	8
(d) Have no opinion	2	4	6	..	3	2	17
(e) Didn't reply	1	2	1	1	1	3	9

	Boys.			Girls.			Total.
	7	17	12	4	15	13	68
	Can	Brit	For	Can	Brit	For	
6. Hours of work per week:							
(a) Under 40	..	1	1	1	..	2	5
(b) 40 to under 45	4	10	6	..	4	4	28
(c) 45 to under 50	2	5	4	2	9	4	26
(d) 50 or over	1	1	1	..	1	1	5
(e) Didn't reply	..	..	..	1	1	2	4
							—
7. Do overtime?							
(a) Yes	..	6	3	2	4	3	18
(b) No	6	11	9	1	9	8	44
(c) Didn't reply	1	..	..	1	2	2	6
							—
8. Ever laid off?							
(a) No	5	14	7	3	11	9	49
(b) Yes, once	1	1	5	..	..	1	8
(c) Twice	..	..	..	1	..	..	1
(d) Often	..	1	..	..	1	1	3
(e) Didn't reply	1	1	..	..	3	2	7
9. General Health:							
(a) Fair or good	6	16	9	4	12	11	58
(b) Poor	1	1	3	..	3	1	9
(c) Didn't reply	..	..	..	..	..	1	1
							—
(d) Endangered in work	3	3	2	2	2	..	12
							—
10. Did you learn your job?							
(a) No learning necessary	..	..	1	1	3	3	8
(b) By watching others	1	..	1	..	..	..	2
(c) Short training on full pay	3	9	3	2	7	8	32
(d) Learning the trade	1	3	2	..	..	..	6
(e) Apprenticed	..	1	..	..	1	..	2
(f) Didn't reply	2	4	5	1	4	2	18
							—
11. Do you know what your next raise in pay will be and when you'll likely get it? (i.e. the promotion plan).							
(a) Yes	4	7	3	..	9	1	24
(b) No	2	9	7	2	4	8	32
(c) Didn't reply	1	1	2	2	2	4	12
							—

	Boys.			Girls.			Total.
	7	17	12	4	15	13	68
	Can	Brit	For	Can	Brit	For	
12. Prospects in present pob:							
(a) Think it is permanent	6	11	6	..	9	2	34
(b) Think it is not	1	5	4	..	3	6	19
(c) Did not know	..	1	2	2	1	2	8
(d) Didn't reply	..	..	..	2	2	3	7
13. Do you get a bonus?							
(a) Yes	3	5	1	..	5	4	18
(b) No	3	9	10	1	8	6	37
(c) Didn't know	..	2	..	..	..	..	2
(d) Didn't reply	1	1	1	3	2	3	11
14. Could you do better if you had more schooling?							
(a) Yes	5	14	7	2	10	7	45
(b) No	2	1	3	..	3	5	14
(c) Didn't know	..	..	..	2	1	..	3
(d) Didn't reply	..	2	2	..	1	1	6
15. Do you expect to take more schooling?							
(a) Yes	5	13	4	1	8	5	36
(b) No	2	1	2	3	3	5	16
(c) Didn't reply	..	3	6	..	4	3	16
16. What kind of schooling would help you most?							
(a) Bus. Coll. subjects	1	1	2	1	4	7	16
(b) P. S. subjects	2	7	2	1	2	..	14
(c) Tech. Sch. subjects	3	7	..	..	..	1	11
(d) High Sch. subjects	..	..	..	..	3	1	4
(e) Didn't reply	1	2	8	2	6	4	23
17. If you were back at public school again would you try to go further than before if you had your choice?							
(a) Yes	4	15	5	1	9	6	40
(b) No	3	1	3	3	2	1	13
(c) Didn't know	..	..	1	..	1	..	2
(d) Didn't reply	..	1	3	..	3	6	13

	Boys.			Girls.			Total.
	7	17	12	4	15	13	68
	Can	Brit	For	Can	Brit	For	
18. On the whole are you satisfied with your experience since leaving school?							
(a) Yes	6	11	5	3	9	6	40
(b) No	1	5	4	1	3	7	21
(c) Have to be	..	..	1	..	..	..	1
(d) Didn't reply	..	1	2	..	3	..	6
19. Would you do differently after leaving school if you had the chance again?							
(a) No	4	5	2	2	6	1	20
(b) Yes	2	8	6	1	6	7	30
(c) Didn't know	1	3	1	1	2	2	10
(d) Didn't reply	..	1	3	..	1	3	8
20. Out of work now?							
(a) Yes	..	1	1	3	3	2	10
(b) No	7	16	11	1	12	9	56
(c) Didn't reply	..	..	..	..	..	2	2
21. What did you dislike most about jobs you've tried?							
(a) Unhealthy work conditions	..	1	2	..	3	1	6
(b) Disliked the work or too young	..	1	1	..	3	..	5
(c) Monotony	2	1	..	..	..	..	3
(d) Poor pay	..	..	1	..	..	1	2
(e) Hours	..	1	..	..	..	1	2
(f) Vague discontent	..	..	1	..	..	1	2
(g) No chance to learn	..	..	1	..	..	..	1
(h) No complaint	5	12	7	3	10	10	47
22. What work would you like best of all now if you had your choice?							
(a) Office work	..	1	..	1	6	7	15
(b) Work with engines	1	6	1	..	..	..	8
(c) Factory work	1	4	..	..	1	..	6
(d) Retail store	1	..	3	1	..	1	6
(e) Telephone or telegraph	..	..	..	2	2	1	5
(f) Printing or binding	..	2	..	..	1	..	3
(g) Departmental store	..	..	..	..	1	1	2
(h) Some trade	..	1	1	..	..	..	2
(i) Wholesale or warehouse	1	..	..	..	..	..	1
(j) Messenger	1	..	..	..	..	..	1

(k) Drafting	1	..	..	..	..	..	1
(l) Travelling salesman	..	..	1	..	..	..	1
(m) Tailoring	..	..	..	..	..	1	1
(n) Dressmaking	..	..	..	..	1	..	1
(o) Nursing	..	..	..	..	1	..	1
(p) Didn't know	..	1	3	..	1	1	6
(q) Didn't reply	1	2	3	..	1	1	8

APPENDIX G

TABLE 1 (See p. 27 *supra*) showing (1) total enrolment (2) transfers and (3) total dropping out for various reasons in the years ending May 31st, 1917, 1918, 1919, 1920, Toronto Public Schools.

	1917	1918	1919	1920	Average
1. Total enrolment	63024	63520	66256	68403	65301
2. No. of transfers	7907	10989	10509	11732	10284
3. (a) No. removed by death	117	106	188	180	148
(b) No. leaving city	3299	3986	5330	6458	4768
(c) Exempted and not returned	176	134	85	101	124
(d) Protracted illness	443	448	366	398	414
(e) Other physical disability	65	97	51	49	66
(f) Mental deficiency	39	48	26	34	37
(g) Passed Entrance	2218	2150	2390	2543	2325
(h) No. who being 14 dropped out of school altogether	2805	3010	3005	3305	3031
(i) No. under 14 left but unaccounted for—					
(1) under 8 years	221	324	334	410	322
(2) between 8 and 14 years	235	90	112	128	144
(j) No. others whether 14 or under who left to enter Technical, Separate or Private Schools, etc.	761	900	795	818	819
TOTAL in 3. i.e. Total elimination not counting transfers	10379	11293	12692	14425	12197
Percentage of total elimination to total enrolment	16.46	17.75	19.15	21.1	18.66

TABLE: II (see. p. 31). Distribution of a group of 6779 children of all ages dropping out of Toronto Public Schools, 1918-19. Arrangement is by sex, nationality and grade left (p. 107) under the various reasons assigned.

Reasons assigned for leaving	Total No. %	Sex: Boys %Boys[1] %Cdn.[2]	Sex: Girls %Girls %Cdn.	Nationality: Can. No. %Can. %Cdn.	Nationality: Brit. No. %Brit. %Cdn.	Nationality: For. No. %For. %Cdn.
1. Left town	2754 40.65	1395 42.15 50.7	1359 39.19 49.3	1356 40.3 49.3	1241 43.6 45.0	157 28.1 5.7
2. Continued higher, technical or special educ. or passed Entrance	1812 26.72	854 25.8 47.2	958 27.66 52.8	1020 30.2 56.23	597 21.0 33.0	195 35.0 10.77
3. To work (without passing Entrance	1251 18.45	632 19.1 50.5	619 17.8 49.5	513 15.1 41.0	595 20.9 47.5	143 25.3 11.4
4. No reason assigned	692 10.2	319 9.65 46.2	373 10.76 53.8	303 9.0 43.7	344 12.1 49.8	45 8.2 6.5
5. Entered separate or private schools	165 2.43	78 2.36 47.3	87 2.52 52.7	127 3.76 17.0	32 1.13 19.4	6 1.1 3.6
6. Medical grounds	63 .93	20 .61	43 1.25	34 1.0	25 .87	4 .8
7. To help at Home	29 .43	3 .09	26 .76	12 .36	11 .38	6 1.1
8. Entered Char. Institutions	6 .09	3	3	5		1
9. Truancy and Delinquency	4 .06	4	0	2	1	1
10. Exempted	3 .04	1	2	3		
	6779 100	3309 100 48.8	3470 100 51.2	3375 100 49.76	2846 100 42.0	558 100 8.24

1 Percentage of boys under the various reasons assigned.
2 Percentage of children under each of the reasons respectively.

TABLE II—*Continued.*

Reasons assigned for leaving	Grade Left											
	Sr. IV		Jr. IV		Sr. III		Jr. III		II		I	
	%Sr. IV	%Cdn.	%Jr.IV	%Cdn	%Sr.III	%Cdn	%Jr.III	%Cdn	% II	% Cdn	% I	% Cdn
1. Left town	109		157		253		352		706		1177	
	4.82	3.96	19.16	5.7	32.6	9.17	54.5	12.8	78.5	25.7	85.4	42.75
2. Continued higher, technical or special educ. or passed Entrance	1689		85		12		4		11		11	
	74.7	93.25	10.3	4.7	1.54	.66	.62		1.22		.8	
3. To work (without passing Entrance	282		408		312		155		67		27	
	12.5	22.5	50.0	32.6	40.25	24.92	24.0	12.4	7.45	5.36	1.96	2.6
4. No reason assigned	149		131		153		91		73		95	
	6.6	21.5	16.0	18.9	19.7	22.1	14.1	13.2	8.1	10.58	6.9	13.75
5. Entered separate or private schools	18		18		26		32		25		46	
	.79		2.2		3.36		4.95		2.79		3.34	
6. Medical grounds	7		5		11		10		14		16	
	.31		.61		1.42		.15		1.59		1.16	
7. To help at Home	6		13		7		1		1		1	
	.27		1.59		.9							
8. Entered Char. Institutions											6	
9. Truancy and Delinquency			1		1				2			
10. Exempted					1		1		1			
	2260		818		776		646		900		1379	
	100	33.3	100	12.08	100	11.5	100	9.52	100	13.3	100	20.34

TABLE III (see p. 33). Distribution of elimination for all reasons of 6779 children in 1918, arranged by grades, ages, nationality and sex.

			13½ yrs. and under		Above 13½ to under 14		14 to under 14½		14½ to under 15		15 to under 15½		15½ to under 16		16 and over		Leaving age not recorded		Total	
Canadian																				
	Sr. IV	Boys	133		81		115		85		70		30		35		12		561	
		Girls		135		90		147		90		83		61		58		16		680
	Jr. IV	Boys	34		23		52		24		28		8		11		13		193	
		Girls		39		28		51		27		21		12		5		14		197
	Sr. III	Boys	53		18		35		10		8		3		2		15		144	
		Girls		70		33		39		12		8		3		4		16		185
	Jr. III	Boys	80		14		29		3		4				1		11		142	
		Girls		74		15		26		4		1						15		135
	II	Boys	157		4		9		2		2						22		196	
		Girls		166		8		15										21		210
	I	Boys	329				7		1		5				4		44		390	
		Girls		291		1		1		2		1						45		342
	Total	Boys	786		140		247		125		117		41		53		117		1626	
		Girls		775		175		279		135		114		77		67		127		1749
British																				
	Sr. IV	Boys	80		61		84		44		50		19		24		9		371	
		Girls		77		70		98		55		58		26		22		11		417
	Jr. IV	Boys	28		38		56		24		9		7		7		6		175	
		Girls		26		34		62		18		11		2		8		11		172
	Sr. III	Boys	62		28		80		6		8		3		2		18		207	
		Girls		51		27		67		11		7		3		2		11		179
	Jr. III	Boys	91		8		31		2		6		1		1		14		154	
		Girls		89		18		38		3		1						13		162
	II	Boys	186		8		15				2		1				18		230	
		Girls		155		6		14				1				1		30		207
	I	Boys	236		2		7		2						2		39		288	
		Girls		243		4		1										36		284
	Total	Boys	683		145		273		78		75		31		36		104		1425	
		Girls		641		159		280		87		78		31		33		112		1421

TABLE III—*Continued.*

Foreign		$13\frac{1}{2}$ yrs. and under	Above $13\frac{1}{2}$ to under 14	14 to under $14\frac{1}{2}$	$14\frac{1}{2}$ to under 15	15 to under $15\frac{1}{2}$	$15\frac{1}{2}$ to under 16	16 and over	Leaving age not recorded	Total
Sr. IV	Boys	31	6	19	13	11	4	10	6	100
	Girls	32	21	29	12	20	5	7	5	131
Jr. IV	Boys	8	4	9	5	2	1	1	10	40
	Girls	5	6	13	5	4		2	6	41
Sr. III	Boys	13	4	4	1				4	26
	Girls	9	6	11	2		1		6	35
Jr. III	Boys	8	1	4	3			2	6	24
	Girls	15	1	4		2			6	29
II	Boys	20	1	2					3	26
	Girls	20					1		10	31
I	Boys	27		1	1	2	2	1	8	42
	Girls	24							9	33
Total	Boys	107	16	39	23	15	7	14	37	258
	Girls	105	34	57	19	26	7	10	42	300
Totals										
Boys all Nat		1576	301	559	226	207	79	103	258	3309
Girls all Nat		1521	368	616	241	218	115	110	281	3470
G. total all children		3097	669	1175	467	425	194	213	539	6779
Percentages by ages		45.7	9.86	17.35	6.88	6.27	2.86	3.14	7.95	100%

TABLE IV (see p. 34). Distribution of employment elimination of 1251 children out of a group of 6779 leaving for all reasons, 1918, arranged by grades, age, nationality and sex.

			$13\frac{1}{2}$ yrs. and under	above $13\frac{1}{2}$ to under 14	14 to under $14\frac{1}{2}$	$14\frac{1}{2}$ to under 15	15 to under $15\frac{1}{2}$	$15\frac{1}{2}$ to under 16	16 and over	Leaving age not recorded	Total
Canadian											
	Sr. IV	Boys	2	5	14	6	10	6	6	2	51
		Girls	1	4	24	12	7	11	9	3	71
	Jr. IV	Boys	1	7	30	15	22	4	7	3	89
		Girls	2	10	38	14	14	8	2	7	95
	Sr. III	Boys	5	9	22	10	5	2		2	55
		Girls	3	16	22	6	4	2	1	6	60
	Jr. III	Boys	1	7	23		2		1	1	35
		Girls	1	6	14	2	1			2	26
	Jr. II	Boys	3	3	3	1	1			1	12
		Girls	4	3	5						12
	Jr. I	Boys	1		2	1	3				7
	Total	Boys	13	31	94	33	43	12	14	9	249
		Girls	11	39	103	34	26	21	12	18	264
British											
	Sr. IV	Boys	6	14	24	2	13	7	3	1	70
		Girls	4	10	17	2	13	4	4	5	59
	Jr. IV	Boys	6	22	41	11	4	3	1	1	89
		Girls	3	16	44	13	7		2	5	90
	Sr. III	Boys	6	15	52	2	5	1	1	4	86
		Girls	8	11	46	5	2	2	1	4	79
	Jr. III	Boys	3	3	25	1	3	1		2	38
		Girls	5	9	22	1				2	39
	Jr. II	Boys	2	5	11			1		1	20
		Girls		4	8					2	14
	Jr. I	Boys	2		6	2					10
		Girls		1							1
	Total	Boys	25	59	159	18	25	13	5	9	313
		Girls	20	51	137	21	22	6	7	18	282

TABLE IV—*Continued.*

Foreign			13½ yrs. and under	Above 13½ to under 14	14 to under 14½	14½ to under 15	15 to under 15½	15½ to under 16	16 and over	Leaving age not recorded	Total
	Sr. IV	Boys.			4	5	1	2	2		14
		Girls.		1	6	2	7		1		17
	Jr. IV	Boys.	1	1	6	3	2	1	1	7	22
		Girls.	2	2	11	3	3			2	23
	Sr III	Boys.	2	4	4	1				2	13
		Girls.	2	3	9	1		1		3	19
	Jr. III	Boys.		1	4	2			1		8
		Girls.	2		3		2		1	1	9
	Jr. II	Boys.	2		2						4
		Girls.	1		1	1	1	1			5
	Jr. I	Boys.	3		1	1	2	1		1	9
		Girls.									
	Total	Boys.	8	6	21	12	5	4	4	10	70
		Girls.	7	6	30	7	13	2	2	6	73
Totals											
Boys, all Nat.			46	96	274	63	73	29	23	28	632
Girls, all Nat.			38	96	270	62	61	29	21	42	619
G. Total, all children			84	192	544	125	134	58	44	70	1251
Percentage			6.2	15.3	43.5	10.0	10.72	4.64	3.52	5.6	100

TABLE V (see p. 37.) Distribution of 192 boys and 164 girls leaving 12 schools to work 1918, arranged by ages, grades and nationality.

		$13\frac{1}{2}$ yrs. and under	Above $13\frac{1}{2}$ to under 14	14 to under $14\frac{1}{2}$	$14\frac{1}{2}$ to under 15	15 to under $15\frac{1}{2}$	$15\frac{1}{2}$ to under 16	16 and over	Totals by grades
Canadian									
Sr. IV	Boys		2	2	3	4		1	12
	Girls		2	9	2	6	2	3	24
Jr. IV	Boys	1		10	3	2	2	2	20
	Girls			4	2	3		1	10
Sr. III	Boys	1	3	7	2	4			17
	Girls			3	2	1			6
Jr. III	Boys	1	1	9					11
	Girls			7	1		1		9
II	Boys			1					1
	Girls			2					2
I	Boys								
	Girls								
Total	Boys	3	6	29	8	10	2	3	61
	Girls		2	25	7	10	3	4	51
British									
Sr. IV	Boys	1	1	4	2	2		1	11
	Girls	1	4	4	2	2	2	1	16
Jr. IV	Boys	1	6	11		3	3	2	26
	Girls		2	12	3	2	2	1	22
Sr. III	Boys	1	5	22	2	1			31
	Girls		2	22					24
Jr. III	Boys	1	2	7	1		1		12
	Girls		2	12		1			15
II	Boys	1		1					2
	Girls		1	1					2
I	Boys			1					1
	Girls								
Total	Boys	5	14	46	5	6	4	3	83
	Girls	1	11	51	5	5	4	2	79

TABLE V—*Continued.*

Foreign		$13\frac{1}{2}$ yrs. and under	Above $13\frac{1}{2}$ to under 14	14 to under $14\frac{1}{2}$	$14\frac{1}{2}$ to under 15	15 to under $15\frac{1}{2}$	$15\frac{1}{2}$ to under 16	16 and over	Totals by grades
Sr. IV	Boys	1	1	6	1	1			10
	Girls		2	1		3			6
Jr. IV	Boys	1	1	6	3	2			13
	Girls		1	6		2			9
Sr. III	Boys		4	3			1		8
	Girls		2	4	2				8
Jr. III	Boys	1	1	4	2	1			9
	Girls	2	1	4	1				8
II	Boys	2	1			1		2	6
	Girls	1	1		1				3
I	Boys							2	2
	Girls								
Total	Boys	5	8	19	6	5	1	4	48
	Girls	3	7	15	4	5			34
Totals									
Boys, all Nat.		13	28	94	19	21	7	10	192
Girls, all Nat.		4	20	91	16	20	7	6	164
G. Total, all children		17	48	185	35	41	14	16	356
Percentage by age		4.8	13.5	52.0	9.8	11.5	3.9	4.5	

TABLE VI (see p. 38). Distribution of 356 children leaving 12 schools to work 1918, arranged by nationality, age and grade.

Canadian	13½yrs. and under	Above 13½ to under 14	14 to under 14½	14½ to under 15	15 to under 15½	15½ to under 16	16 and over	Totals by grades
Sr. IV*		4	11	5	10	2	4	36
Jr. IV	1		14	5	5	2	3	30
Sr. III	1	3	10	4	5			23
Jr. III	1	1	16	1		1		20
II			3					3
I								
Total by Ages	3	8	54	15	20	5	7	112
Percentage by Ages	2.68	7.15	48.2	13.4	17.84	4.47	6.25	
British								
Sr. IV**	2	5	8	4	4	2	2	27
Jr. IV	1	8	23	3	5	5	3	48
Sr. III	1	7	44	2	1			55
Jr. III	1	4	19	1	1	1		27
II	1	1	2					4
I			1					1
Total by Ages	6	25	97	10	11	8	5	162
Percentage by Ages	3.7	15.4	60.0	6.15	6.75	4.9	3.1	
Foreign								
Sr. IV	1	3	7	1	4			16
Jr. IV	1	2	12	3	4			22
Sr. III		6	7	2		1		16
Jr. III	3	2	8	3	1			17
II	3	2		1	1		2	9
I							2	2
Total by Ages	8	15	34	10	10	1	4	82
Percentage by Ages	9.75	18.3	41.5	12.2	12.2	1.2	4.85	

*Including 3 from Grade V.
**Including 2 from Grade V.

TABLE VII (see p. 40). General Proficiency of 289 children leaving 10 public schools to work, 1918-19, from their average standing in all subjects for the last complete term in school.

Boys:	No.	90% or over	Under 90 to 85	85 80	80 75	75 70	70 65	65 60	60 55	55 50	50 45	45 40	40 35	35 30	Under 30	Average	Median
Canadian	56			1	7	9	9	5	6	8	4	2	3	2		60.9	66.5
British	57	1			2	5	15	14	5	8	2	2	1	1	1	59.3	64.6
Foreign	40				2	5	4	9	3	3	4	3	2	2	3	55.7	62.1
Total	153	1		1	11	19	28	28	14	19	10	7	6	5	4	59.6	64.2
Girls:																	
Canadian	48		1	2	2	5	10	6	10	4	5	1	1	1		61.6	64.6
British	57			3	7	8	7	10	6	8	5	1	2			62.9	65.5
Foreign	31		1			4	5	5	2	3	5	3	1	1	1	56.9	62.3
Total	136		2	5	9	17	22	21	18	15	15	5	4	2	1	61.1	64.4

TABLE VIII (see p. 41). Subjects in which 342 children leaving 11 public schools to work, were *most* and *least* proficient, arranged in order of greatest incidence.

Boys:	Incidence of Subjects as Best or Second Best												
	No. Pupils	Read.	Spell.	Wr.	Comp.	Arith.	Geog.	Hist.	Gram.	Lit.	Nat. Study	Hyg.	Draw.
Canadian	62	23	25	16	11	12	15	9	4		3	3	3
British	79	28	18	14	20	18	17	13	6	3	5	2	3
Foreign	39	9	13	7	6	13	11	4	1		2	1	
Totals	180	60	56	37	37	43	33	35	11	3	10	6	6
Percentage of incidence		17.8	16.6	11.0	11.0	12.75	9.8	10.4	3.25	.9	2.95	1.78	1.78
Girls:													
Canadian	51	27	19	17	11	1	3	6	7	4	4	1	2
British	78	29	37	19	17	10	11	8	3	9	2	5	1
Foreign	33	12	15	10	5	8	4		5	3		1	
Total	162	68	71	46	33	19	18	14	15	16	6	7	3
Percentage of incidence		21.25	22.25	14.55	10.45	6.0	5.7	4.4	4.75	5.65	1.9	2.2	.9
All Children:													
Total	342	128	127	83	70	62	61	40	26	19	16	13	9
Percentage of incidence		19.57	19.42	12.7	10.7	9.47	9.32	6.12	3.98	2.91	2.45	1.99	1.37

TABLE VIII—*Continued.*

Boys: Incidence of Subjects as Poorest or Second Poorest

	Arith.	Geog.	Comp.	Sp.	Hist.	Gram.	Wr.	Lit.	Read.	Hyg.	Draw.	Nat. Study
Canadian	27	10	16	19	10	13	11	12	3	4		1
British	36	13	24	15	12	15	18	12	6	2	1	2
Foreign	16	6	8	4	7	7	10	6	6	1	3	2
Totals	79	29	48	38	29	35	39	30	15	7	4	5
Percentage of incidence	22.07	8.1	13.4	10.64	8.1	9.78	10.9	8.38	4.2	1.95	1.11	1.39

GIRLS:

Canadian	34	19	3	9	11	8	5	4	1	6	1	
British	45	29	11	15	18	8	5	4	3	7	5	2
Foreign	18	11	5	4	6	7	3	2	6			2
Total	97	59	19	28	35	23	13	10	10	13	6	4
Percentage of incidence	30.5	18.6	6.0	8.8	11.5	7.2	4.1	3.1	3.1	4.1	1.8	1.2

ALL CHILDREN:

Total	176	88	67	66	64	58	52	40	25	20	10	9
Percentage of Incidence	26.1	13.05	9.92	9.77	9.47	8.6	7.7	5.93	3.7	2.96	1.48	1.32

TABLE IX (see p. 44). Distribution of repetition among 274 children leaving 10 schools to work, 1918-19.

Boys:	No. Pupils Reported	No. non-repeaters	No. repeaters	Type of repetition			
				Single	Double	Treble	Multiple
Canadian	52	15	37	12	3	5	17
British	70	23	47	21	15	6	5
Foreign	26	11	15	9	3	1	2
Totals	148	49	99	42	21	12	24
Percentage		33	67	42.4	21.2	12.2	24.2
Girls:							
Canadian	41	20	21	7	5	3	6
British	68	34	34	13	11	7	3
Foreign	17	7	10	2	4		4
Totals	126	61	65	22	20	10	13
Percentage		48.5	51.5	33.8	30.8	15.4	20
Total, all children	274	110	164	64	41	22	37
and Percentage		40.2	59.8	39.0	25.0	13.4	22.6

TABLE X (see p. 57). Showing, (1) Placement, (2) Turnover, (3) Job Tenure of Juveniles within first two years of working experience (p. 120).

	1. Distribution of children by way jobs are secured					2. Distribution of children by no. of jobs held since leaving 1918-19 to Aug. 30, 1920								
Boys:	No. cases reported	Direct Enquiry	Friends and Relatives	News-papers	Teachers	No. cases	1 job	2 jobs	3 jobs	4 jobs	5 jobs	6 jobs	7 or more	Aver. no. jobs
Canadian and British...	91	41	33	16	1	85	31	26	16	4	6	1	1	2.23
Foreign.....	26	9	11	5	1	33	12	10	5	2	2		2	2.39
Total Boys.....	117	50	44	21	2	118	43	36	21	6	8	1	3	2.28
Percentage Boys.....		42.5	37.5	18	1.7		36.5	30.5	17.8	5.1	6.8	.8	2.54	
GIRLS:														
Canadian and British...	80	36	32	7	5	82	36	30	8	5	1	2		1.92
Foreign.....	24	9	5	9	1	27	12	5	4	5	1			2.19
Total Girls.....	104	45	37	16	6	109	48	35	12	10	2	2		1.98
Percentage Girls.....		43.2	35.5	15.6	5.7		44.0	32.1	11.0	9.3	1.8	1.8		
TOTALS:														
No. Children.....	221	95	81	37	8	227	91	71	33	16	10	3	3	2.14
Percentage.....		43.0	36.6	16.8	3.6		40.1	31.3	14.5	7.1	4.4	1.3	1.3	

TABLE X—*Continued.*

	3. Distribution of children by average time in months, per job, per child.								
Boys:	No. cases	Under 2 months	2 to under 4	4-6	6-12	12-18	18 and over	Aver. time per job per group	Median time for group
Canadian and British	76	2	13	17	26	12	6	8.55	11.05
Foreign	24	5	2	3	5	7	2	9.05	13.86
Total Boys	100	7	15	20	31	19	8	8.67	11.91
Percentage Boys		7.0	15.0	20.0	31.0	19.0	8.0		
Girls:									
Canadian and British	72	8	13	11	16	18	6	8.78	13.38
Foreign	24	2	6	6	2	7	1	8.05	13.51
Total Girls	96	10	19	17	18	25	7	8.59	13.42
Percentage Girls		10.4	19.8	17.7	18.8	26.0	7.3		
Totals:									
No. Children	196	17	34	37	49	44	15	8.63	12.76
Percentage		8.65	17.35	18.9	25.0	22.5	7.65		

TABLE XI (see p. 61). Distribution of first jobs (F) of 244 children and of 265 instances of subsequent jobs (S) held by some of these and a few other children. Jobs arranged in order of total frequency.

Jobs	Boys				Girls				Total Percentage					
	Can. & Br.		Foreign		Can. & Br.		Foreign		of all boys		of all girls		of all children	
	F	S	F	S	F	S	F	S	F	S	F	S	F	S
1. Factory and shop	44	54	10	24	39	41	16	22	41.6	48.8	47.8	60.0	44.5	53.3
2. Messenger & Errand (inside,outside)	13	17	9	7	1	1			16.9	15.0	.87	.95	9.4	9.5
3. Departmental Stores	12	10			17	5	1	2	9.23	6.25	15.65	6.65	12.2	6.4
4. Offices	3	2	1	1	17	9	6	4	3.08	1.87	20.0	12.4	11.3	6.1
5. Small Retail	3	4		4	3	7	2	1	2.3	5.0	4.35	7.6	4.5	6.1
6. Driving wagon	11	6	1						9.23	3.75			4.9	2.3
7. Wholesale & warehouse	5	5	2		1				5.38	3.13	.87		3.2	1.9
8. Printing	3	3	2	5					3.85	5.0			2.0	3.0
9. Telephone oper.					6	6		1			5.23	6.65	2.4	2.7
10. Tailoring			3	3			1	1	2.3	1.87	.87	.95	1.6	1.5
11. Peddling		4	1						.77	2.5			.4	1.5
12. Restaurants		1	3	1					2.3	1.25			1.2	.75
13. Millinery					1	2	1	1			1.75	2.9	.8	1.1
14. Farming		5								3.13				1.9
15. Laundry	1	1				1			.77	.62		.95	.4	.75
16. Selling papers		1	1	1					.77	1.25			.4	.75
17. Cobbling	2								1.54				.8	
18. Domestic Service					1	1					.87	.95	.4	.35
19. Sign-painting		1								.62				.35
20. Stage					1						.87		.4	
									100%	100	100	100	100	100
Total No. First Jobs	97		33		87		27		130		114		244	
Total No. subsequent Jobs		114		46		73		32		160		105		265

TABLE XII (see p. 62). Type of factory and shop jobs held by 248 working children.

	Metal Trades commercial & precious	Food Products	Sewing and Clothing Trades	Printing & Binding	Paper-box and bag	Miscellaneous under 3% each		
	Aluminum Automobiles Brass works Cutlery Electric goods Jewelry Machine-shop Sheet-metal Silver-plating	Biscuits Bread Cereals Cocoa Confectionery Gum	Bags Clothing Knitting White wear			Boot & Shoe Brush Carpet Drug & Chemical Furniture French Ivory Glass Leather Goods	Optical goods Paint & varnish Piano actions Rubber goods Ship yards Shoe-polish Soap Toys Trunks	Twine Wood-working
Boys								
Can. & Brit.	32	11	5	9	5	37		
Foreign.....	4	3	10	6	1	10		
No. Boys....	36	14	15	15	6	47		
% Boys.....	27.0	10.5	11.3	11.3	4.5	35.4		
Girls:								
Can. & Brit..	15	15	12	12	5	21		
Foreign.....	1	7	8	6	5	8		
No. Girls....	16	22	20	18	10	29		
% Girls.....	13.9	19.1	17.4	15.7	8.7	25.2		
Totals:								
No. Children	52	36	35	33	16	76		
% Children..	21.0	14.5	14.1	13.3	6.5	30.6		

TABLE XIII (see p. 64). Wages of children who left school to work, 1918-19.

Boys:

Nat'y.	Type of Weekly Wage	No. wage-earners	Under $5	$5 to under 6	6–7	7–8	8–9	9–10	10–11	11–12	12–14	14–16	16–18	18 20	20 22	$22 and over	Specific Averages from data	Median from table	Work at home, no wage
Can. & Brit.	First	77	1	2	15	18	23	6	6	2	3	1					$7.89	$8.37	
	Best	86				3	6	11	20	10	11	12	5	2	2	3	11.95	12.32	3
	Aver.	47			2	9	14	9	5	2	4	1	1				9.37	9.27	
For'n	First	25	1	4	5	3	5	1	4		1		1				7.78	8.49	
	Best	26					1	2	6	4	5	5	2	1			12.15	12.87	2
	Aver.	15	3	1		1	2	4	2	2							7.81	9.49	
Boys Total	First	102	2	6	20	21	28	7	10	2	4	1	1				7.86	8.39	
	Best	112		1		3	7	13	26	14	16	17	7	3	2	3	11.99	12.49	5
	Aver.	62	3	1	2	10	16	13	7	4	4	1	1				8.98	9.21	

Girls:

Can. & Brit.	First	73		8	13	10	15	7	12	4	3	1					$8.10	$8.85	
	Best	83					9	10	10	11	24	8	8		1		11.57	12.53	1
	Aver.	44	2		6	4	7	8	8	1	5	3					9.14	9.94	
For'n	First	25		1	1	4	7	6	2								8.84	8.83	
	Best	26					1	2	6	3	6	6			1	1	12.51	13.10	1
	Aver.	14			1	2	2	5	2		1	1					9.57	9.61	
Girls Total	First	98		9	14	14	22	13	14	4	3	1					8.29	8.83	
	Best	109					10	12	16	14	30	14	8		2	1	11.79	12.70	2
	Aver.	58	2		7	6	9	13	10	1	6	4					9.24	9.56	

Totals:

All Chld'n	First	200	2	15	34	35	50	20	24	6	7	2	1				$8.07	$8.58	
	Best	221		1		3	17	25	42	28	46	31	15	3	4	4	11.89	12.63	7
	Aver.	120	5	1	9	16	25	26	17	5	10	5	1				9.11	9.74	

TABLE XIV (see p. 66). Reasons given by children for leaving jobs: 249 instances arranged in order of frequency.

Reasons	Boys		Girls		Total Boys		Total Girls		Total
	Can. & Brit.	For.	Can. & Brit.	For.	No. instances	%	No. instances	%	%
1. Dissatisfied with pay	30	9	10	4	39	27.8	14	12.8	21.3
2. Laid off	20	9	7	4	29	20.7	11	10.1	16.1
3. Disliked the work or too immature	8	7	16	2	15	10.7	18	16.5	13.25
4. Unhealthy work conditions	13	6	7	1	19	13.6	8	7.3	10.85
5. Undefinable discontent	7	7	9	2	14	10.0	11	10.1	10.0
6. Trouble with the foreman	6	3	4	6	9	6.43	10	9.3	7.62
7. Sickness or accident	1		10	1	1	.73	11	10.1	4.82
8. Trouble with fellow employees	1		8	2	1	.73	10	9.3	4.42
9. Distance from home		1	1	4	1	.73	5	4.6	2.4
10. Disliked the hours	3	1		2	4	2.86	2	1.8	2.4
11. To continue education	1	3	2		4	2.86	2	1.8	2.4
12. Chance of a better job	3		1		3	2.14	1	.9	1.6
13. To help at home			2	2			4	3.6	1.6
14. To work with friends or relatives	1		1		1	.73	1	.9	.82
15. Disliked the overtime			1				1	.9	.4
	94	46	79	30	140		109		

TABLE XV. (See p. 70.) Wages within the first 18 months, arranged according to the status of the earners at the time of leaving school.

Part A: Relation of age of leaving to average first and best wage.

	1. Leaving 14 to 14½ yrs.			2. 14½ to 15 yrs.			3. 15 to 15½ yrs.			2 and 3 combined 14½ to 15½ yrs.		
	No. cases	First wage	Best wage	No.	First wage	Best wage	No.	First wage	Best wage	No.	First wage	Best wage
Boys	50	$7.51	11.94	8	$6.44	10.75	9	$8.22	12.66	17	$7.38	11.77
Girls	56	7.71	11.38	9	9.11	11.33	9	11.56	12.03	18	9.78	11.68
All Children	106	7.62	11.64	17	7.79	11.06	18	9.89	12.35	35	8.90	11.72

Part B: Relation of grade left to best wage earned. [Same cases as reported in C below.]

	Total	I and II	Jr. III	Sr. III	Jr. IV	Sr. IV
No. Boys	86	3	12	25	32	14
Boys' Aver. Best Wage	$12.25	10.33	11.91	12.27	12.70	11.91
No. Girls	88	2	17	21	27	21
Girls' Aver. Best Wage	$11.84	9.50	13.08	11.52	11.99	11.19
All Children	174	5	29	46	59	35
Children's Aver. Best Wage	$12.04	10.00	12.59	11.93	12.37	11.48

Part C: Relation of general proficiency by marks in percent to best wage earned.

	Total	Under 35%	35 to under 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80	80 and over
No. Boys	86	4	5	2	6	12	8	14	13	12	8	2
Boys' Aver. Best Wage	12.25	14.60	12.61	9.50	13.00	11.63	11.59	12.40	12.22	12.78	11.50	12.50
No. Girls	88	2	2	4	9	8	12	16	15	12	5	3
Girls' Aver. Best Wage	11.84	12.75	12.00	11.25	12.02	12.50	10.63	12.38	11.60	12.32	11.00	12.33
All Children	174	6	7	6	15	20	20	30	28	24	13	5
Children's Av. Best Wage	12.04	13.98	12.44	10.67	12.41	11.98	11.02	12.39	11.89	12.55	11.31	12.40

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